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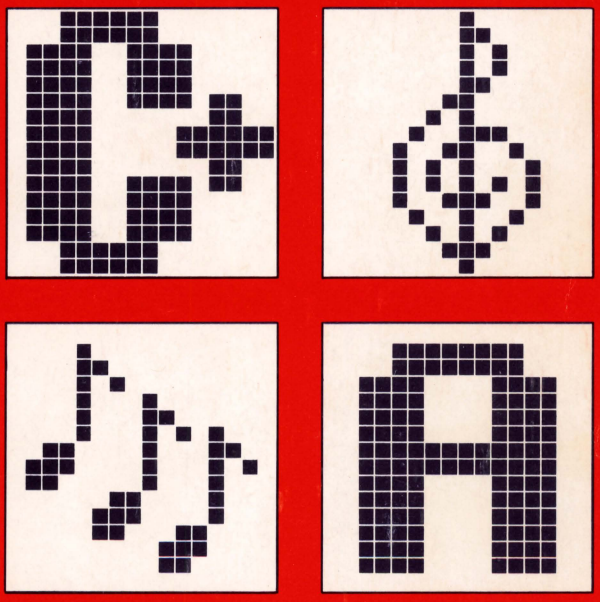
THE Children's Discovery System™



Activity Book

DISCOVERIES IN™ MUSIC
Learning Fun Module

Use this learning fun module with
The Children's Discovery System™ Computer

MATTEL

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THE CHILDREN'S DISCOVERY SYSTEM™ LEARNING FUN MODULES

90 DAY LIMITED WARRANTY

Mattel Toys warrants to the original consumer purchaser of any of its Electronic Toys that the product will be free of defects in material or workmanship for 90 days from the date of purchase.

During the 90-day Warranty Period, the product will either be repaired or it will be replaced with a reconditioned model of equivalent quality (at our option) without charge to the purchaser, when returned either to the dealer with proof of the date of purchase, or when returned prepaid and insured, with proof of the date of purchase, to

Mattel Electronics Repair Center
5000 West 147th Street
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Units returned without proof of the date of purchase, or units returned after the 90-Day Warranty Period has expired, will either be repaired or replaced with a reconditioned model of equivalent quality (at our option), for a service charge of $10.00. Payment must be made by check or money order. This out-of-warranty service will only be available for one year from the date of purchase. All out-of-warranty units must be returned postage prepaid and insured to Mattel Electronics Repair Center.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty does not cover damage resulting from accident, unreasonable use, neglect, unauthorized service or other causes not arising out of defects in material or workmanship.

IF YOU HAVE ANY QUESTIONS OR
PROBLEMS REGARDING THE USE OF
THE CHILDREN'S DISCOVERY SYSTEM™ COMPUTER
OR YOUR LEARNING FUN MODULES,
CALL THIS TOLL-FREE NUMBER:

(800) 421-2887

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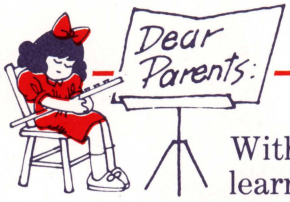


With the DISCOVERIES IN™ MUSIC learning fun module, you are giving your child an opportunity to enrich his life by increasing his or her understanding and appreciation of music. Music is one of the greatest outlets available to us for expressing our feelings. The child who understands music will find in it a means of self-expression that will help him release his most deeply felt emotions, now and for the rest of his life.

In this learning fun module, your child will be able to explore many aspects of music. In addition to its aesthetic values, he or she will find that performing music with the computer helps to develop coordination of the eyes, ears, mouth, hands and feet.

With DISCOVERIES IN™ MUSIC, the computer becomes a rhythm machine. Through it your child will learn about beats, counting rhythmic phrases, and keeping in tempo to many different rhythms with foot-tapping and hand-clapping.

With DISCOVERIES IN™ MUSIC, the computer becomes a keyboard, with a full 2-octave range of 25 musical notes. But unlike standard pianos, this instrument **stores** and remembers the notes your child plays—up to 64 notes at a time! It even lets him or her go back and **edit** the stored notes, then play back the entire composition, to hear the change. This is a valuable aid in training your child's ear.

Different voices, special effects, 13 playback speeds and volume settings, 7 pre-programmed chords, a special Learn Mode, and more—all combine to make music learning a fun and totally unique experience.

This may only be the beginning. If your child shows a definite interest in music, we suggest that you seek competent instruction that will further his musical education.

Sincerely,

Raymond P. Wagner

Raymond P. Wagner, President

Music is all around us, day and night. Clock radios wake us up or put us to sleep. We hear it in grocery stores and shopping centers, in the car and on TV. If we live in or visit the country, we hear music in other forms—birds singing, streams gurgling, crickets and tree frogs, wind and waves.

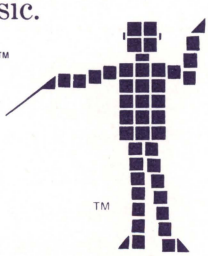
How do we feel when we hear music? Sometimes it makes us happy, sometimes sad. Sometimes we feel like getting up and dancing. In a movie, it can make us feel scared or full of suspense.

And yet, there's a lot more to music than just listening. When we feel happy or sad, we can share our feelings by making our own music. That's what your DISCOVERIES IN™ MUSIC learning fun module is all about. With it and your computer, you will be able to create your own music and songs, play them many different ways, store them in your computer while you make changes, and add special fun sound effects. You can play songs fast or slow, loud or soft. You can play music in different "voices" that change the overall sound of your computer music. You can even play chords!

The best part is that while you're having all this fun, you'll be learning music. You'll learn how to play and sing melodies, how to play in different tempos with different rhythms, like an electric bass player, and how to keep time like a drummer. You'll learn the notes of a keyboard and many other things that will help you make your very own special music.

CURSOR THE GREAT™

Hi! Remember me? I'm Cursor the Great™. I'm the computer man who's made up of many little black computer squares. This time I'm going to be your computer music man and point out special things to you in this Activity Book.



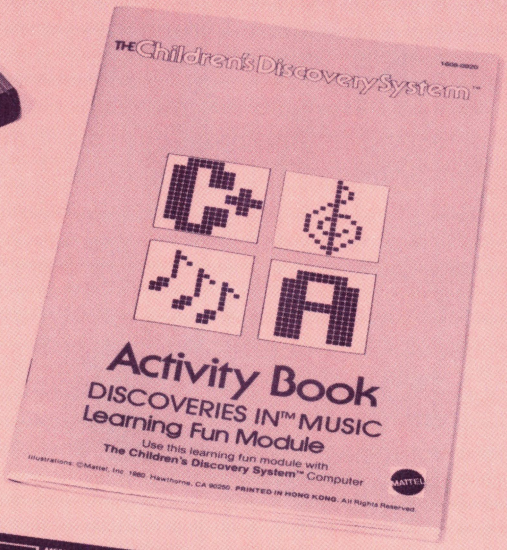
Let's get ready for lots of musical fun together.

INSIDE THE CARTON YOU WILL FIND:

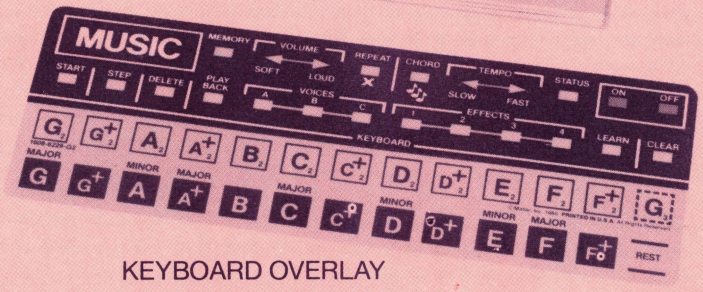
YOUR **DISCOVERIES IN™ MUSIC** LEARNING FUN MODULE CONSISTS OF:

DISCOVERIES IN MUSIC CARTRIDGE
DISCOVERIES IN MUSIC ACTIVITY BOOK
DISCOVERIES IN MUSIC KEYBOARD OVERLAY

CARTRIDGE



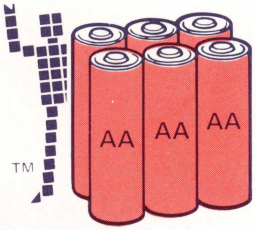
ACTIVITY BOOK



KEYBOARD OVERLAY

Your DISCOVERIES IN™ MUSIC cartridge has two built-in battery saving features:

1. If nothing is stored in its memory, it will shut itself off about 1½ minutes after you stop playing with it.
2. If musical notes, rests or special effects are stored in its memory and you stop playing with it, it will not shut off but will "beep-beep" about every 1½ minutes as a reminder to let you know it's still on.



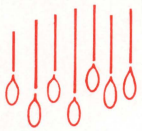
"REMEMBER...to keep fresh batteries in your computer. It uses six AA alkaline batteries. If you need to put new batteries in, check the front of your Computer Activity Book for directions. (Any time your computer starts showing strange displays or not doing what it's supposed to do, it probably needs fresh batteries.")

CARTRIDGES NEED GOOD CARE, TOO!

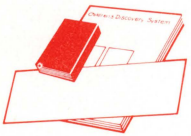
Your DISCOVERIES IN™ MUSIC cartridge has some very delicate electronic parts inside. Because of this, it needs some extra care.

Don't leave it in direct sunlight or anywhere else where it will get very hot (120° F or hotter).

Don't let it get very cold either (35° F or colder).



Don't get your cartridge wet or dirty.



When you're finished using a cartridge, TAKE IT OUT OF YOUR COMPUTER. ALWAYS TURN YOUR COMPUTER OFF BEFORE YOU REMOVE OR INSERT A CARTRIDGE.

Do not try to plug your cartridge into any other computer. Do not try to plug any other type of cartridge into YOUR computer.

Take care of your DISCOVERIES IN™ MUSIC cartridge and it will work for a long, long time.

LET'S GET STARTED

"Make sure your computer is turned OFF."

PUT THE CARTRIDGE INTO THE COMPUTER.

Hold the cartridge so that the label side (the side that says MUSIC) is facing UP.

Now place the cartridge into the opening in front of your computer. Push it in as far as it will go.

When you want to take a cartridge out, TURN YOUR COMPUTER OFF, then just pull the cartridge straight out.

PUT THE OVERLAY OVER THE KEYBOARD.

Your learning fun module comes with a thin, plastic sheet that fits over the computer keyboard. This is called an OVERLAY. It is printed on one side only.

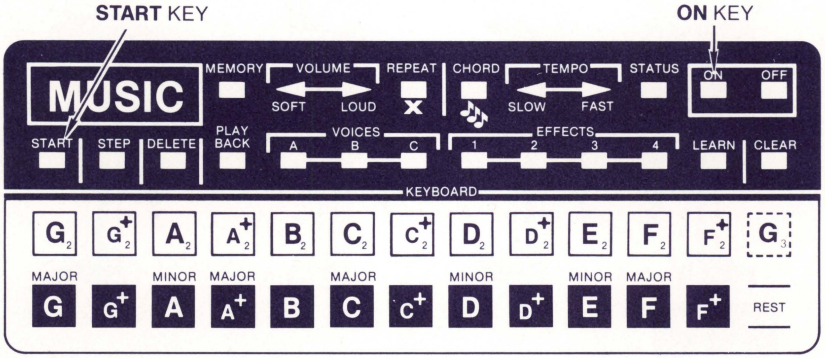
Find the LONG LIP that runs all the way around the keyboard, except for a top and bottom space in the middle of the keyboard. Start in the middle space and slip the LEFT side of the overlay UNDER the LEFT TOP and LEFT BOTTOM LIPS. Slide the overlay all the way under the LEFT END LIP, as far as it will go.

Now slip the RIGHT side of the overlay under the RIGHT TOP and RIGHT BOTTOM LIPS. You will have to make a loop in the overlay to do this. (See the picture.) BE CAREFUL NOT TO CREASE THE OVERLAY. Slide the right side of the overlay all the way under the RIGHT END LIP, as far as it will go.

Make sure the overlay is securely under the lip, on all four sides of the keyboard. This overlay tells you which keys to use in the DISCOVERIES IN™ MUSIC cartridge. Each cartridge that you use will have its own overlay.

TURN YOUR COMPUTER ON.

Press the ON key. The ON key is on the right side of the keyboard, at the top.

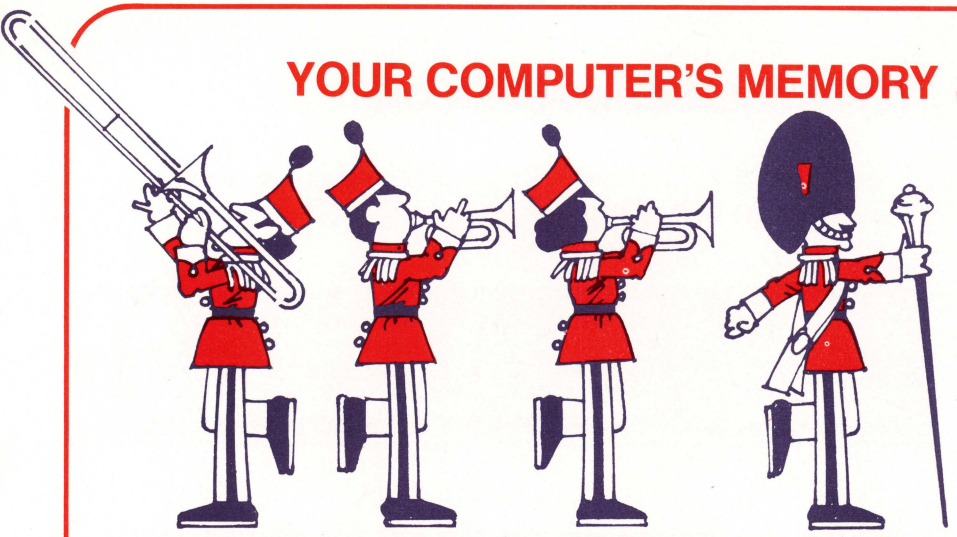


When your computer comes on, it will ask **START?** Press the **START** key. You will hear a short MUSICAL TUNE and the word MUSIC will appear in the center of the screen.

"If you do not hear the musical tune and the word MUSIC does not appear on the screen, check to make sure you have placed the MUSIC overlay on the keyboard. If you have other cartridges, you may have picked up the wrong overlay. The START key is in a different place on each different subject overlay."

While the word MUSIC is on your screen, you can play all of the notes on your keyboard. These are the two bottom rows of keys on the overlay. Go ahead and try them. Play any notes you want and hear how they sound. In the SONGS TO PLAY section of this Activity Book are many songs that you can also play.

YOUR COMPUTER'S MEMORY . . .

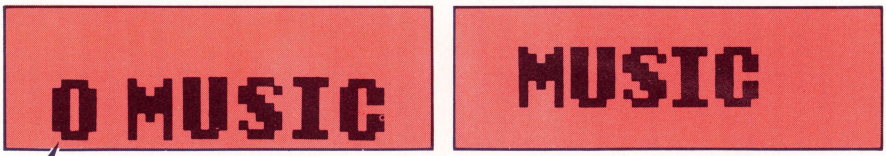


MEMORY

When you see the word MUSIC all by itself in the **center** of the screen, you can play songs, but you cannot store them in the computer's memory.

TO TURN YOUR COMPUTER'S MEMORY **ON,** PRESS THE **MEMORY** KEY. THE SCREEN WILL LOOK LIKE THIS:

TO TURN YOUR COMPUTER'S MEMORY **OFF,** PRESS THE **MEMORY** KEY AGAIN. THE SCREEN WILL CHANGE BACK TO THIS:



DISPLAY SCREEN

Figure 1.

Your computer's memory will hold up to **64** notes, rests or special effects. This is a counter that tells you how many you've stored so far. When the counter reaches 64, the computer will **not play or store** any more notes, rests or special effects.

Turning the memory OFF will not erase the memory. You can only erase the memory by pressing CLEAR or by turning the **computer** off.

. . . HOW AND WHEN TO USE IT

IF THE COMPUTER MEMORY IS FULL, AND...

- **You want to store another song,** press CLEAR **KEY** to erase what is already stored in the memory. The counter will reset to 0 and you can start over. Pressing CLEAR erases EVERYTHING in the computer's memory.

- **You want to play another song without storing it,** press **MEMORY KEY.** The memory will be turned OFF, but the songs you stored will NOT be erased.

WITH THE COMPUTER MEMORY ON:

- You will see what you play, on the screen, as you play it.
- You will see what the computer plays back, on the screen.
- You will store what you play in the computer's memory, up to 64 notes, rests or special effects.
- The activity you are doing (such as PLAY or LEARN) will show on the BOTTOM line.

WITH THE COMPUTER MEMORY OFF:

The computer will remember what you have **already** stored in memory, but it will **not** remember any new notes, rests or special effects that you play (as long as the memory is off). You can only erase the memory by pressing CLEAR or by turning the **computer** off.

- You will NOT see what you play, on the screen.
- You will NOT see what the computer plays back. The playback will be at a faster speed than with the memory on.
- The activity you are doing will show in the CENTER of the screen.

FOR NOW, TURN THE COMPUTER MEMORY ON.

A QUICK LOOK AT THE KEYBOARD

Here's a fast look at the keys you will be using with DISCOVERIES IN™ MUSIC. Use this page as a handy reminder, if you forget what a key does.

MEMORY key—turns the computer's memory on and off.

PLAYBACK—causes the computer to play everything you stored in its memory.

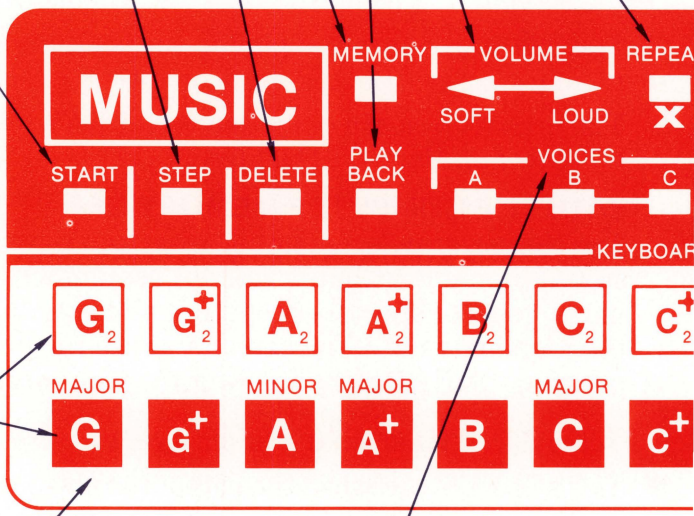
DELETE—erases the last note, rest or special effect in computer's memory, one at a time.

VOLUME keys—makes the sound softer when you press SOFT, louder when you press LOUD.

STEP—turns the Single Step mode on. Plays the next note from a song in memory each time you press it.

REPEAT—when this is on most other keys will repeat as long as you hold that key down.

START—starts your DISCOVERIES IN™ MUSIC program.



NOTE keys—all the notes you can play. Press a key and hear that note.

CHORD keys—these notes become special, "strummed" 3-note chords when the chord function is turned on.

VOICES—causes everything you play to have 1 of 3 special sounds—the "normal" electronic sound, an echo sound or a repeating sound.

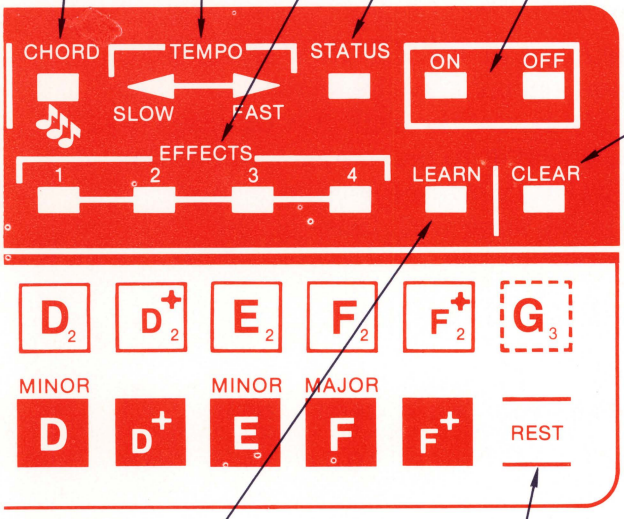
CHORD—turns the chord function on, so certain note keys sound like 3-note chords.

TEMPO—causes everything you play to be more drawn out when you press SLOW and quicker when you press FAST. Also affects how quickly the keys respond to your touch.

EFFECTS—like note keys, only they play 4 different special effects when you press them. 1—Boing 2—Click 3—Alarm sound 4—White noise

STATUS—Lets you see the Volume, Repeat, Chord and Tempo levels. When the memory is off, you must hold this key down.

ON and **OFF** keys—turn your computer ON and OFF.



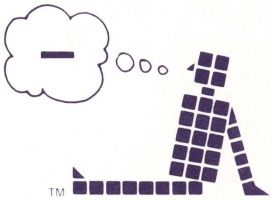
CLEAR—erases everything in the computer's memory.

LEARN—turns on the Learn mode. Notes appear one at a time on screen with no sound. You must press the right note to hear sound and get the next note.

REST—puts a 1-beat pause into a song when you press this key.

LET'S PLAY A SONG!

Play and store the following song. As you press each note key, the letter name for that note appears in the upper right corner of the screen. It then moves to the left, as you play each new note. Only 6 notes, rests and/or special effects will fit on the screen at one time. If you keep playing, the new notes you play will push the first notes off the left side of the screen. You will see only the LAST 6 NOTES YOU PLAYED. However, the other notes are still stored in the computer's memory.



"When you play a note, keep pressing that key until you HEAR the note, before you press another. In the case of a rest, which has no sound, keep pressing the REST key until the symbol appears on the screen. YOU DO NOT HAVE TO PRESS HARD."

Take a look at the notes in WHISTLE WHILE YOU WORK. Some have a small 2 by the letter name, like G_2. To play these notes, use the TOP row of note keys on your keyboard overlay. To play notes without the small 2, use the BOTTOM row of note keys. Just match the notes in the song with those on the keyboard overlay.

WHISTLE WHILE YOU WORK

Words by LARRY MOREY Music by FRANK CHURCHILL

G_2	F	E	F	G_2	—	—
Whis—	tle	while	you	work	(rest)	(rest)

G_2	G_2	F	E	F	G_2	—	—
(Whistle)						(rest)	(rest)

G_2	G_2	F	E	D	G_2	F	E
Put	on	that	grin	and	start	right	in,

D	G_2	F	E	D	C
To	whis—	tle	loud	and	long.

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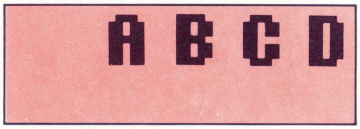
IF YOU HIT A WRONG NOTE, PRESS **DELETE KEY**, THEN THE RIGHT NOTE.

If you press DELETE again, all the notes will disappear from the top line, but only 1 more note will be erased from the computer's memory. To find out more about this, see page 33, HOW TO EDIT A SONG IN MEMORY.

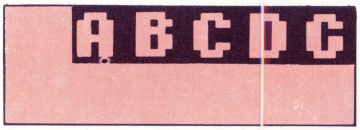
This is how the display screen should look when you finish entering this song.

Figure 2

Notice that some notes look different than others on the display screen. This is so that you can tell the difference between notes that have the same letter name, but are in different octaves.



In general, all notes from the TOP row of note keys on your overlay show on the screen as a dark note on a light background. In this book, these notes have a small 2 by the letter name (G_2, A_2, etc.).



All notes from the BOTTOM row of note keys on your overlay show on the screen as a light note on a dark background. In this book, these notes have only the letter name (G, A, etc.).

The last G on the top line of your overlay is special. It shows on the screen as a dark note on a checkered background. In this book, this G has a small 3 by the letter name (G_3).

Remember this way of writing down notes when you write your own songs to play on your computer. A way of writing down notes is called a NOTATION SYSTEM.

AND PLAY IT BACK AGAIN

Press **PLAYBACK KEY**. The computer will play back everything you stored in its memory. As it plays the song, it will display each note and rest, just as it did when you entered the song. The word PLAY will show on the bottom line.

Now turn the memory OFF. (Press **MEMORY**.) Then press **PLAYBACK KEY** again. The computer will play your song again, but FASTER. You will not see the notes and rests. The word PLAY will show in the center of the screen.

Turn the memory back ON. (Press **MEMORY** again.) Leave WHISTLE WHILE YOU WORK in the memory while you learn about...

SPECIAL OPERATING CONTROLS

These keys allow you to create many different effects in what you play.

Press **STATUS KEY**. You will hear the computer's "THINKING TUNE." The screen will change to show indicators for these 6 keys. Call this the STATUS SCREEN.

VOLUME INDICATOR TEMPO INDICATOR

STATUS SCREEN

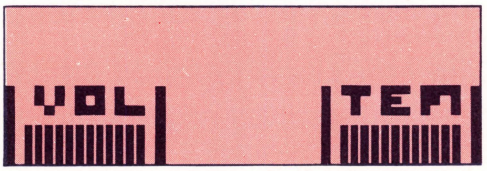
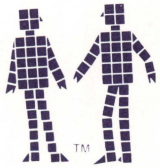
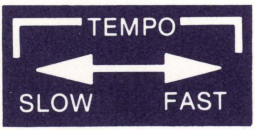


Figure 3

"The REPEAT and CHORDS indicators do not show yet. We'll talk about these a little further on."



TEMPO

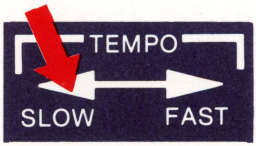


In music, tempo refers to the speed at which a song is played.
You have two tempo keys on your computer overlay – FAST and SLOW. These keys control:

1. THE SPEED OF PLAYBACK
2. THE SPEED AT WHICH THE KEYBOARD REACTS TO YOUR TOUCH

There are 13 different tempo settings in all from 0 through 12. On tempo 1 (slow) the indicator will show 1 vertical row of black squares. On tempo 2, you will see 2 rows of squares. And so forth, all the way up to tempo 12 (fastest). On tempo 12 you will see 12 rows of squares. Exception: On tempo 0 (slowest), the indicator will be blank.

When you first turn your computer on, the tempo will automatically be set at tempo 12, the fastest speed.

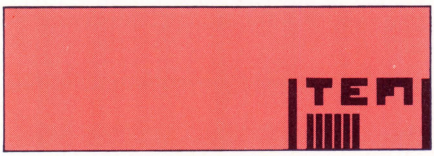


Press **SLOW TEMPO KEY**. The computer will beep and one row of squares will disappear. The computer is now set at tempo 11. Each time you press this key, the computer drops to a slower tempo and another row of squares disappears. Keep pressing until there are no rows of squares left. This is tempo 0.

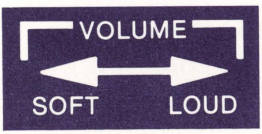
Notice that as the tempo gets slower, the beeps last longer. The slower your tempo, the longer it takes for the computer to react when you press a key, and to finish doing what you told it to do. Always make sure the computer is completely finished with its last task, before you press another key and give it a new task.

Now press **PLAYBACK KEY** and listen to WHISTLE WHILE YOU WORK at the slowest possible tempo. If you press MEMORY to turn the memory off before you press PLAYBACK, the song will be a little faster, because the computer won't be showing you the notes as it plays them. It has less work to do, so it's a little peppier.

Press **FAST TEMPO KEY.** It also beeps each time you press it. The tempo indicator starts filling in the rows of squares. The tempo gets FASTER each time you press it. The keyboard also reacts faster to your touch. Set the tempo indicator to TEMPO 6 and playback WHISTLE WHILE YOU WORK. Turn the computer's memory OFF before you press the PLAYBACK key. When the playback is finished, turn the memory back ON.

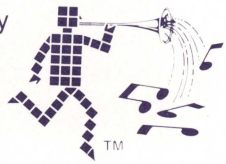


VOLUME



The two VOLUME keys work the same as the TEMPO keys. There are 13 volume levels from 0 through 12. Press **SOFT VOLUME KEY** and you'll hear the beep get softer. One of the vertical rows on the VOLUME INDICATOR will disappear. Press **LOUD VOLUME KEY** and you'll hear the beeps get louder. One of the vertical rows on the volume indicator will be filled in each time you press this key.

"Always be considerate of others who may be nearby when you are playing music on your computer. If the volume is too loud, you may be disturbing someone who's trying to concentrate on something else."



REPEAT

The REPEAT function does just what its name says—it will keep repeating any other key you press, for as long as you press the other key.

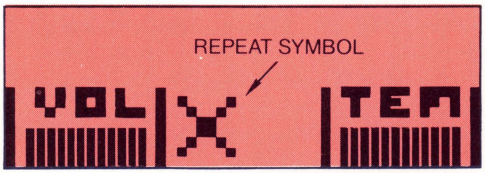


Figure 4

To turn the REPEAT function ON, press **REPEAT KEY**. To turn it OFF, press this key again. Whenever you press REPEAT, you will hear the computer's "THINKING TUNE." If the status screen is displayed, this symbol ⤫ will appear. When you turn Repeat OFF, the symbol will disappear.

The REPEAT key makes it easier to adjust the VOLUME or TEMPO levels. With the REPEAT function ON, hold down the volume or tempo key, until you reach the level you want. Then release that key. Try it!

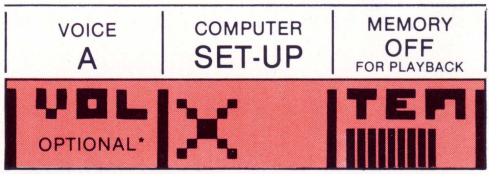
Use REPEAT to play songs that repeat the same note many times in a row. With the REPEAT on, hold the correct note key down. The computer will repeat that note until you let up on the note key.

The Christmas song on the next page is a good example of a song with many repeated notes. There are six places where the same note is repeated four times. Make sure you see the ⤫ on the screen. Then press the E key and hold it down until the computer enters E four times. Now let up on the E key and press D. Hold it down until the computer enters D three times.

"From now on, you will see a COMPUTER SET-UP BOX next to each song. This will tell you how to set **your** computer to get the best possible sounds and effects for that song. When the MEMORY section of the box says OFF, this means 'off for PLAYBACK only.' Always have the MEMORY ON when you enter notes into the memory. Also, at the end of each song, you will see what your Memory Counter should show. Make sure the number on your computer screen matches the number in this book. If it does not, read the section HOW TO EDIT A SONG IN MEMORY on page 33."

Make sure you CLEAR the computer's memory first.

JOLLY OLD SAINT NICHOLAS



*OPTIONAL means set VOLUME wherever you wish

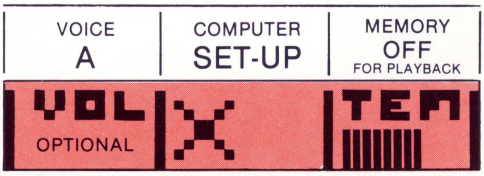
E	E	E	E	D	D	D	—
Jol —	ly	old	Saint	Ni —	cho —	las,	(rest)
C	C	C	C	E	—	—	—
Lean	your	ear	this	way!	(rest)	(rest)	(rest)
A	A	A	A	G	G	C	—
Don't	you	tell	a	sin —	gle	soul	(rest)
B	C	D	E	D	—	—	—
What	I'm	going	to	say;	(rest)	(rest)	(rest)
E	E	E	E	D	D	D	—
Christ-mas		eve	is	com —	ing	soon,	(rest)
C	C	C	C	E	—	—	—
Now	you	dear	old	man,	(rest)	(rest)	(rest)
A	A	A	A	G	G	C	—
Whis —	per	what	you'll	bring	to	me	(rest)
D	C	D	E	C	—	C_2	
Tell	me	if	you	can.	(rest)		

MEMORY COUNTER SHOWS: 63

NOTICE THAT AS SOON AS YOU START PLAYING NOTES, RESTS OR SPECIAL EFFECTS, THE SCREEN SWITCHES BACK TO THE DISPLAY SCREEN. (See Figure 1, page 10.) YOU SEE THE MEMORY COUNTER, THE WORD **MUSIC** AND THE NOTES YOU ARE PLAYING.

Here's another song with many repeated notes:

TWINKLE, TWINKLE LITTLE STAR



C	C	G_2	G_2	A_2	A_2	G_2	—
Twink-	le,	twink -	le	lit -	tle	star	(rest)
F	F	E	E	D	D	C	—
How	I	won -	der	what	you	are.	(rest)
G_2	G_2	F	F	E	E	D	—
High	a -	bove	the	earth	so	high,	(rest)
G_2	G_2	F	F	E	E	D	—
Like	a	dia -	mond	in	the	sky,	(rest)
C	C	G_2	G_2	A_2	A_2	G_2	—
Twink-	le,	twink -	le	lit -	tle	star	(rest)
F	F	E	E	D	D	C	
How	I	won -	der	what	you	are.	

MEMORY COUNTER SHOWS: 47

IF YOU WANT TO CHECK THE SPECIAL OPERATING CONTROLS ANY TIME, JUST PRESS THE STATUS KEY AGAIN.

If the computer memory is ON, the STATUS SCREEN (Figure 3, page 16) will stay on until you start playing notes, rests or special effects again.

If the computer memory is OFF, the STATUS SCREEN will only stay on as long as you hold down the STATUS key.

CHORD (pronounced "CORD")

When you press the CHORD key, you hear the computer's "THINKING TUNE" and see this symbol on the STATUS SCREEN. This symbol means the chord function is ON.

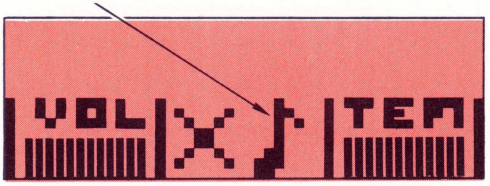


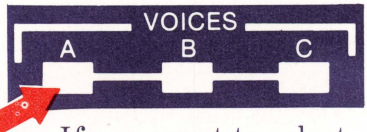
Figure 5

"We'll learn about chords and the CHORD key on page 47. Right now, let's take a look at the VOICES and SPECIAL EFFECTS on your computer."

VOICES

There are three different OVERALL SOUNDS that you can choose from when you play music on your computer. These overall sounds are called VOICES. When you change to a different voice, EVERYTHING you play will sound different.

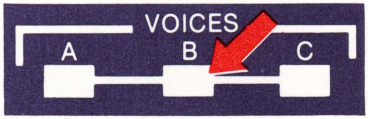
VOICE A



This is the "normal" voice that you've been hearing when you play a song. It is automatically selected when you turn the computer on. If **you** want to select this voice, press **VOICE A KEY.**

Whenever Voice A is selected, the TEMPO changes to the FASTEST speed. The VOLUME does not change. Of course, YOU can change the tempo or volume any time, when you are using this voice.

VOICE B



This voice gives an "echo" effect to everything you play. Press the **VOICE B KEY**. You will hear a single note with the echo effect.

Now play any notes and listen to the sound. When you select Voice B, the TEMPO automatically changes to TEMPO 11. The VOLUME automatically changes to Volume 6. You can change the tempo if you wish, BUT YOU CANNOT CHANGE THE VOLUME, as long as you are using this voice.

Try changing the TEMPO in Voice B. Notice that different tempos change the sound of Voice B a little. Experiment to see how many different variations on this voice you can get.

Let's play a short song in Voice B. Set the TEMPO back at 11.

"Before entering anything new into the computer's memory, always press CLEAR KEY. This will not affect the voice you chose."

ECHO WALTZ

VOICE	COMPUTER	MEMORY
B	SET-UP	ON FOR PLAYBACK
VOL PRESET*		TEM PRESET*

*PRESET means you don't have to set VOLUME or TEMPO—VOICE B automatically does so.

G G_2 — E E — G_2 G_3 — E_2 E_2 —
G G_2 — G_2 F — E F D — — —
G F — D D — G_2 F_2 — D_2 D_2 —
D F — F E — D E C — C_2

MEMORY COUNTER SHOWS: 47

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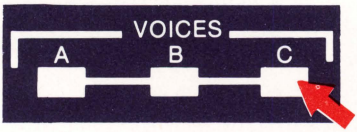
Now press **PLAYBACK KEY** and listen. Slow the TEMPO to 6 and play it back again. Hear the difference in sound?

You can use the VOLUME key to change the SOUND of Voice B even more. You'll have to listen hard to hear the differences. THE VOLUME ITSELF WILL NOT CHANGE.

VOICE C



This is a repeating voice which gives the effect of a banjo player strumming the strings. Press the **VOICE C KEY**. You will hear a single note with the strumming effect.

Play any notes and listen to the sound. When you select Voice C, the TEMPO automatically changes to Tempo 7. The VOLUME automatically changes to Volume 6. You can change the tempo, BUT NOT THE VOLUME. (Though you can use the VOLUME KEY to change the SOUND of this voice, just as you did with Voice B.)

When you change the tempo in Voice C, you also change the overall sound of the voice.

Play the following song in Voice C. Don't forget to CLEAR the memory first. Because this song has many repeated notes, press **REPEAT KEY** to turn the REPEAT function ON.

"ANY TIME YOU PRESS A VOICE KEY, THE SCREEN WILL SWITCH TO THE STATUS SCREEN, IF THE MEMORY IS ON. (See Figure 3 on page 16.) AS SOON AS YOU START PLAYING NOTES, RESTS OR SPECIAL EFFECTS, THE SCREEN WILL CHANGE BACK TO THE DISPLAY SCREEN AND YOU WILL SEE THE NOTES YOU PLAY."

YOU CANNOT MAKE ANY CHANGES IN VOICE, TEMPO OR VOLUME DURING NORMAL PLAYBACK.

OH, THEM GOLDEN SLIPPERS

VOICE	COMPUTER	MEMORY
C	SET-UP	OFF FOR PLAYBACK
VOL PRESET	X	TEM PRESET

G_2 G_2 G_2 C_2 E_2 D_2 C_2 G_2
Oh, —— them gold — en slip—pers!

A_2 A_2 A_2 D_2 F_2 E_2 D_2 A_2
Oh, —— them gold — en slip—pers,

B_2 B_2 B_2 C_2 D_2 D_2 D_2
Gold — en slippers I'm goin' to wear

B_2 C_2 B_2 C_2 D_2 E_2 E_2 E_2 E_2
be—cause they look so neat ——

G_2 G_2 G_2 C_2 E_2 D_2 C_2 G_2
Oh, —— them gold — en slip—pers!

A_2 A_2 A_2 D_2 F_2 E_2 D_2 A_2
Oh, —— them gold — en slip—pers!

B_2 B_2 B_2 C_2 D_2 D_2 F_2
Gold — en slippers I'm goin' to wear

F_2 E_2 F_2 E_2 D_2 C_2 C_2 C_2 C_2
to walk the gold — en street! ——

MEMORY COUNTER SHOWS: 64

PLAY BACK

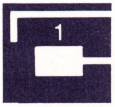
Now press **PLAYBACK KEY** and listen. Change the TEMPO to 11 and play it back again. Now move the VOLUME setting and playback. Remember: You will hear a difference in the voice sound, but not in the actual volume.

SPECIAL EFFECTS

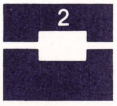
Your computer has four SPECIAL EFFECTS keys. On your overlay, these are simply called EFFECTS. They create sounds that are not musical notes. These special effects can be used in different ways.

1. To take the place of rests
2. Instead of a note or notes
3. To create a "rhythmic feel"

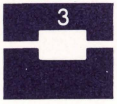
Make sure the memory is ON. Then press CLEAR and VOICE A. Try each EFFECT key, as you read about it. Notice that the special effect NUMBER appears on the screen when you press the key.



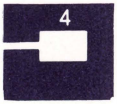
At different tempo settings, this key sounds like a "boing" or an upward sliding sound. Try it with these different tempo settings:



A "click," just like a musical metronome. This effect sounds the same at all tempos AND AT ALL VOLUMES.



A "fluttering" alarm sound, much like the sound of some newer telephones. This effect sounds the same at all tempos, only the sound is more drawn out at slower tempos.



An electronic "white noise" similar to a drummer's cymbals. It also sounds the same, no matter what tempo you use, only the sound is more drawn out at slower tempos.

Let's look at some ways to use these special effects.

TO TAKE THE PLACE OF RESTS

WHISTLE WHILE YOU WORK (on page 14) has four rests in the first two lines. You can replace these rests with one or more special effects. Try it. (Don't forget to CLEAR the memory first.)

In some songs, you wouldn't want to replace **all** the rests with special effects, unless you're trying to create a "silly song" version, such as this one. Make sure the memory is ON, then play and store WHEN THE SAINTS GO MARCHING IN. Whenever you come to a number instead of a note, press that number EFFECTS KEY. When you're finished, play it back. Set it for different VOICES, different TEMPOS, and different VOLUMES, before you play it back. Try it with the MEMORY ON and OFF.

VOICE	COMPUTER	MEMORY
OPTIONAL	SET-UP	OPTIONAL FOR PLAYBACK
VOL OPTIONAL		TEM OPTIONAL

WHEN THE SAINTS GO MARCHING "SILLY"

C E F G_2 1 2 3 4
Oh, when the saints, (SPECIAL EFFECTS)

C E F G_2 4 3 2 1
Go march-ing in (SPECIAL EFFECTS)

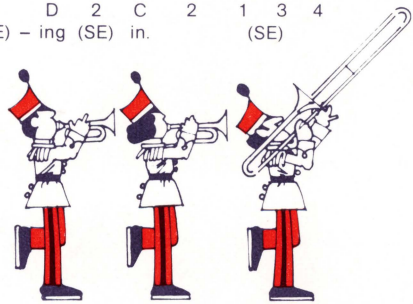
C E F G_2 1 E 1 C 1 E 1 D 4 4 1 1
Oh, when the saints (SE) go (SE) march-(SE)-ing (SE) in (SE)

E E D C 2 C 2 E 1 G_2 1 G_2 F 3 3 3 4
I want to be (SE) there (SE) in (SE) the (SE) num-bers (SE)

E F G_2 4 E 4 C 3 D 2 C 2 1 3 4
When the saints (SE) go (SE) march-(SE) - ing (SE) in. (SE)

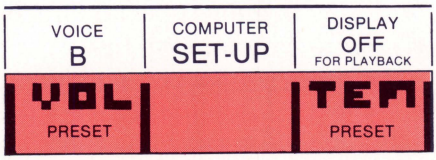
MEMORY COUNTER SHOWS: 64

(SE means Special Effects)



INSTEAD OF A NOTE OR NOTES

This song uses SPECIAL EFFECTS in place of some rests and the note A_2.



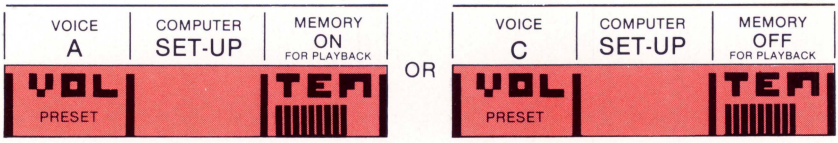
POP! GOES THE WEASEL

G	C	2	C	D	2	D	E	G_2	E	C	3	
Oh,	all	(SE)	a	– round	(SE)	the	mul	– ber	– ry	bush	(SE)	
G	C	2	C	D	2	D	E	2	4	C	4	
The	monk	–(SE)	– ey	chased	(SE)	the	weas	–(SE)	(SE)	– el	(SE)	
G	C	2	C	D	2	D	E	G_2	E	C	2	2
The	monk	–(SE)	– ey	thought	(SE)	'twas	all	———	in	fun	(SE)	(SE)
3	—	—	D	2	F	E	—	—	C	1		
Pop!	(rest)	(rest)	Goes	(SE)	the	weas	–(rest)	(rest)	– el.	(SE)		

MEMORY COUNTER SHOWS: 48

TO CREATE A "RHYTHMIC FEEL"

SPECIAL EFFECT 4 is used in this German song to imitate the sound of a drummer's cymbal.



DU, DU LIEGST MIR IM HERZEN

(You Are In My Heart)

E	4	4	E	4	4	E	D	E	G_2	4	F	
Du,	(SE)		du,	(SE)		liegst	mir	im	Her	—(SE)–	zen	
E	4	4	D	4	4	D	G_2	F	E	4	4	
Du,	(SE)		du,	(SE)		liegst	mir	im	Sinn	(SE)		
E	4	4	E	4	4	E	D	E	G_2	4	F	
Du,	(SE)		du,	(SE)		machst	mir	viel	Schmer-	(SE)–	zen	
D	E	F	A_2	G_2	B	C	4	4	1			
Weiss	nicht	wie	gut	ich	dir	bin.	(EFFECTS)					

MEMORY COUNTER SHOWS: 46

SPECIAL PLAYBACK MODES— SINGLE STEP AND LEARN

There are two special ways in which you can playback a song.

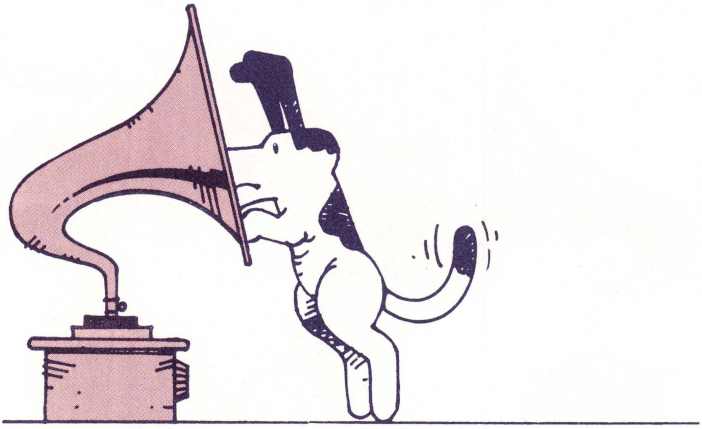
THE SINGLE STEP SHUFFLE

This playback mode lets you make up your own rhythm and tempo as you playback a song. It also helps you edit a song in memory. (More on this later, on page 33.)

1. Turn the memory ON.
2. Play and store the ECHO WALTZ from page 23. Use Voice A.
3. When you're finished, LEAVE the memory ON.
4.

Press **STEP KEY** instead of **PLAYBACK KEY**...The screen will look like **Figure 6.** (If the memory is OFF, you will only see S-STEP in the center of the screen. You will not see notes as you play them.)

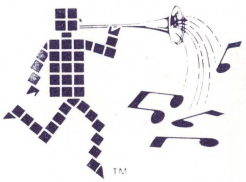
Figure 6



5. Press STEP again. Each time you press it, you will hear and see the next note, rest or special effect in the song. If you press STEP quickly, the overall tempo of the song will be fast. If you press it slowly, the overall tempo will be slow. If you press it at different speeds during the song, you will change the RHYTHM of the song. (More about Rhythm later.)

6. When you have played the entire song, press STEP one more time. The screen will change back to the DISPLAY SCREEN. If you have room in the memory, you can now add more notes. Or you can switch to a different activity. Or you can Single Step again, by pressing STEP again.

   (If the memory is OFF when you finish with Single Step, the screen will not change to DISPLAY SCREEN. It will only show MUSIC in the middle of the screen.)



"Think of Single Step as a way to take playback off computer-control and put it on people-control."

LEARN A LOONEY TUNE (IN LEARN MODE)

LEARN is another kind of "manual" playback mode. It will help you remember the letter names of different notes and where these notes are on your keyboard.

1. Make sure the memory is ON. Press CLEAR to erase it.
2. Play and store POP! GOES THE WEASEL from page 28. Use Voice A.
3. When you're finished, leave the memory ON. (Memory automatically comes on whenever you go into Learn mode.)
4.

Now press **LEARN KEY** instead of **PLAYBACK KEY.** The bottom line on the screen will show LEARN. The top line will show the first note from POP! GOES THE WEASEL.

Figure 7

5. YOU WILL NOT HEAR THE NOTE ON THE TOP LINE UNTIL YOU PRESS THAT NOTE KEY ON THE KEYBOARD. After you press the right note, the computer will show you the next note of the song. If you press the wrong note, nothing will happen. (Of course, when we say note, we mean any note, rest, special effect or chord.)
6. When you have played the entire song, press LEARN one more time. The screen will change back to the DISPLAY SCREEN, with the last 6 notes you played on the top line. If you want to start again, just press LEARN again.

"If you press LEARN with nothing stored in the memory, the screen will change back to the DISPLAY SCREEN after a second or two."

7. If you are in Learn mode and want the computer to finish a song for you, press **PLAYBACK KEY.** The bottom line will now show PLAY. When the computer finishes playing the song, the screen will change to the DISPLAY SCREEN.

CHANGES YOU CAN MAKE IN SINGLE STEP AND LEARN MODES

You can change VOICE, VOLUME or TEMPO any time, in Single Step or Learn modes. The screen will **not** change to the Status Screen, as it normally would when you press these keys, but the change will be made nevertheless.

VOICE—When you press any VOICE key, you will hear a note in that voice. When you continue Single Step playback, the entire song will be in the new voice.

VOLUME—Each time you press the LOUD or SOFT key, you will hear a beep that gets louder or softer. When you continue Single Step playback, the entire song will be at the new volume level. (Remember that you cannot change volume in Voices B and C.)

TEMPO—Each time you press the FAST or SLOW key, you will hear a beep that lasts for a shorter or longer time. A tempo change in Single Step playback is different from a regular tempo change. Only the DURATION of each note changes—that is, how long each note lasts when you play it.

NOTES—In SINGLE STEP mode you can also change the notes you play. This is called EDITING. You will learn about editing on page 33.

TO GET OUT OF SINGLE STEP OR LEARN MODE, press either PLAYBACK, MEMORY OR CLEAR. Remember that CLEAR erases everything in memory.

YOU CANNOT SWITCH DIRECTLY BACK AND FORTH BETWEEN SINGLE STEP AND LEARN MODES. YOU MUST ALWAYS GO TO THE DISPLAY SCREEN FIRST (see Figure 1, page 10) BY PRESSING THE **MEMORY** KEY.

HOW TO EDIT A SONG IN MEMORY

Sometimes when you are entering a song, you will want to change a note, rest or special effect. Perhaps you hit a wrong key and need to correct it. Or maybe you simply want to try a different sound. There are a couple of ways you can do this.

TO MAKE BIG CHANGES

Use the CLEAR key. Press **CLEAR KEY**, erase everything in memory and start over. This is a good method if you have a lot of changes to make.

TO MAKE QUICK CHANGES

Use the DELETE key. If you are entering a song into memory and you realize that you **just** pressed the wrong note, do this:

1 Correct melody notes → **G C E – E D**
From this val - ley they

Whoops! Wrong note pressed and wrong note entered into memory

Notes being displayed

6 notes entered into memory

2 Press DELETE

Space goes blank on screen and note is deleted from memory

1 is subtracted from Memory Counter

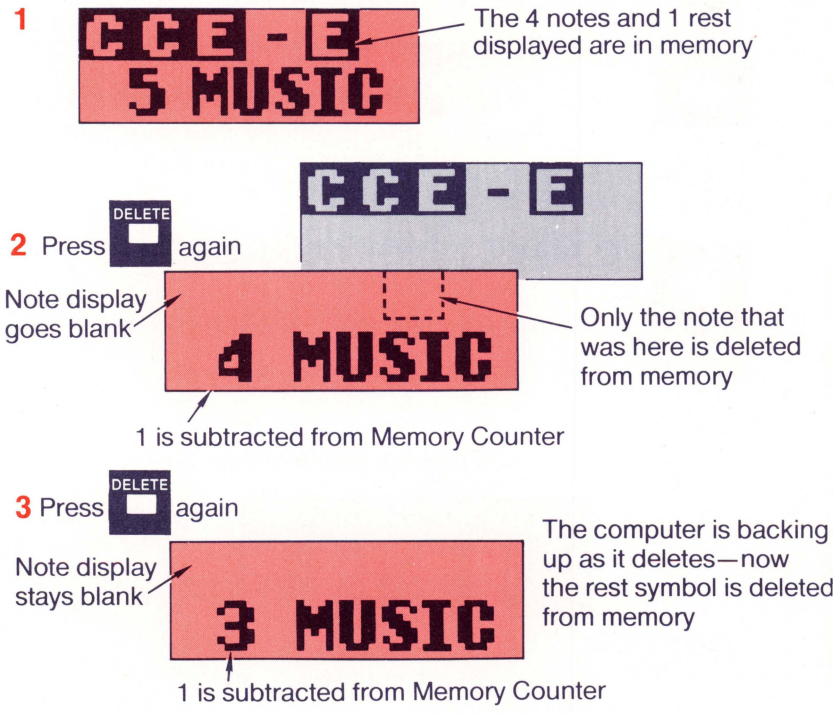
3 Press correct note—D

New note appears in place of wrong one and is added to memory

1 is added back to Memory Counter

You can delete as many notes from memory as you wish. First, press DELETE to erase the D note.

Instead of putting a new note in place of the D note, you can press DELETE again and again. Here is what happens:


1
C C E - E
5 MUSIC
The 4 notes and 1 rest displayed are in memory
2 Press DELETE again
C C E - E
Note display goes blank
4 MUSIC
Only the note that was here is deleted from memory
1 is subtracted from Memory Counter
3 Press DELETE again
Note display stays blank
3 MUSIC
The computer is backing up as it deletes—now the rest symbol is deleted from memory
1 is subtracted from Memory Counter

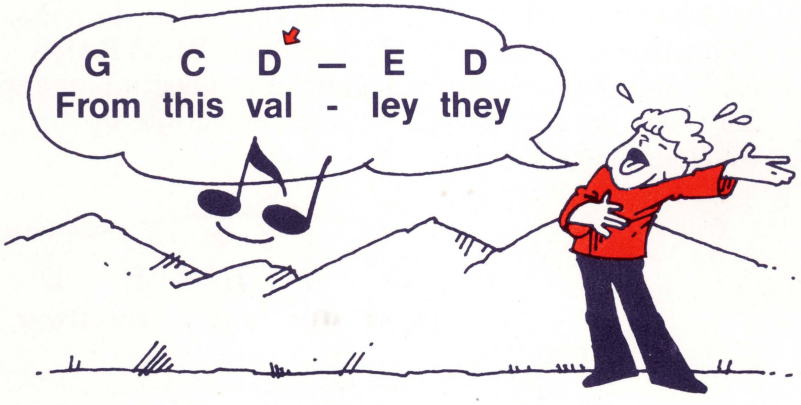
When you use the DELETE key to erase more than one note from memory, you have to remember what you are deleting, because notes are not displayed on the screen. If you want to delete more than three notes, use **REPEAT KEY** and just keep holding the DELETE key for as long as you wish.

When you are finished deleting, you can start again to enter notes into memory. The computer will add these new notes to any that are left in memory; however, it will only display the new notes that you enter.

MAKING CHANGES LATER

Use the SINGLE STEP mode. If you discover an error, or want to change a note, in the middle of a song, keep the MEMORY ON and press **STEP KEY.** Now Single Step through the song until you reach the note you want to change. When it appears on the screen, press the key for the new note, rest or special effect you want. If you want to take the note out and NOT REPLACE IT, press DELETE. The computer will erase the note and move all notes after it over, to fill the space. The Memory Counter will show 1 number less and the computer will return to the Display Screen.

Let's try an example of editing in Single Step mode. Press **CLEAR KEY** and enter the following six notes. This time the wrong note is the **third** one.



Press **STEP KEY** and your screen will show:

←This is the 1st note in memory

S-STEP is the abbreviation for SINGLE STEP. Each time you press STEP, the computer will play and display only one note—the next note in memory.

Press **STEP KEY** two more times, until the screen shows:

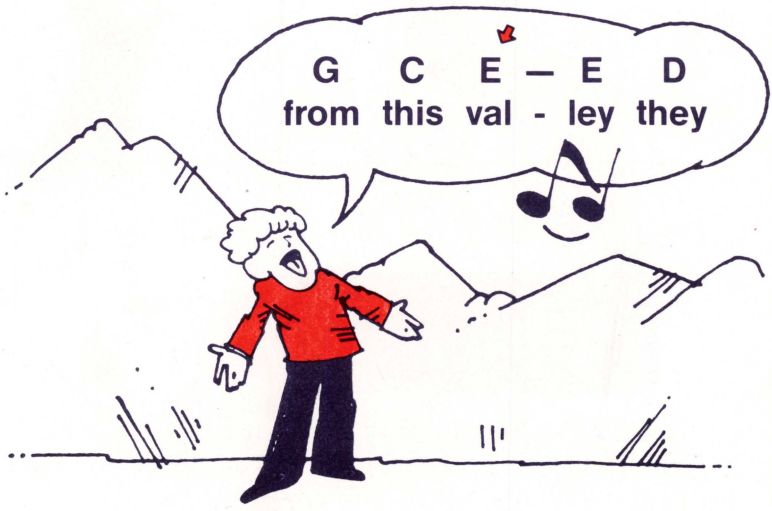
1

This is the 3rd note in memory—the wrong one

2 Press correct note E

Note appears on screen and is entered into memory

When you are finished making changes, you do not have to Single Step all the way to the end of the song. Just turn the MEMORY off, then press **PLAYBACK KEY** and the computer will start at the beginning and play back the entire song, with all corrections or changes that you made.



NEW NOTES

The built-in Music Mode in your computer gave you 14 different notes to play. With your DISCOVERIES IN™ MUSIC learning fun module, you now have 25 notes! These notes are shown on a musical staff in Figure 8. Below the staff you will see the notes as they appear on your keyboard overlay.

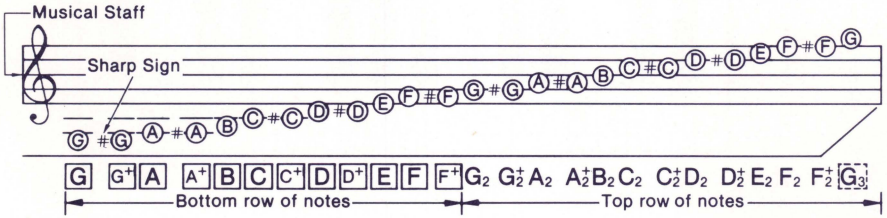



Figure 8

The 11 new notes are indicated on this picture of the overlay.

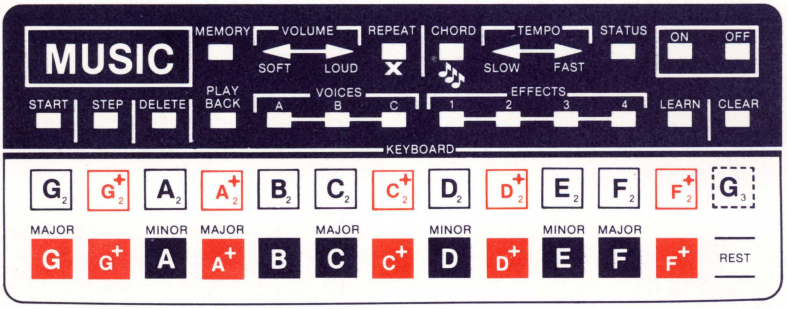


Figure 9

Notice that all of the new notes, except the G in the lower left corner, have a plus sign (+) next to the letter. Musically, the plus notes are called "sharps." Musical sharp signs are the # designs that appear in front of 10 of the notes in Figure 8.

Sharps are the black keys on a piano or organ.

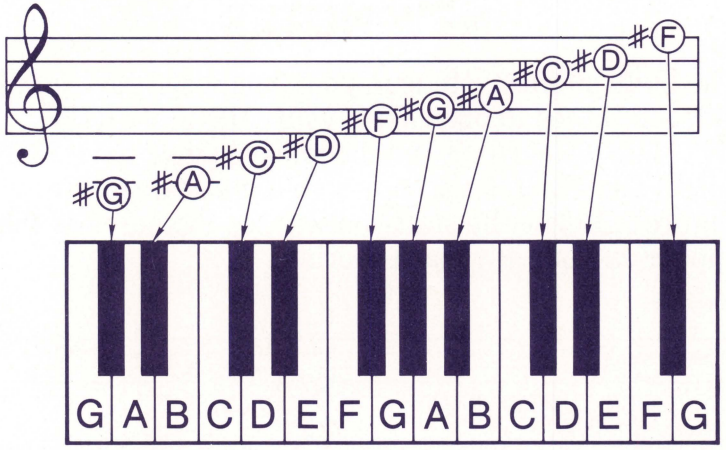


Figure 10

On your computer + signs are used because they're easier to recognize on the Display Screen.

A sharp raises the "pitch" of a tone—its high or low sound. For instance, the G+ note is slightly higher in pitch than G. Play G and G+ and listen. Then play A. The pitch of G+ is in between G and A, just as it would be on a piano keyboard. Sharps are used to name the black keys to the RIGHT of notes.

When you say the name of the sharp notes, say the letter name first, then the word "sharp." G+ is the "G sharp" key.

"Here is another sign you may see in other music books—♭. This is called a FLAT sign. Flats are another way of naming the black keys on the keyboard, but they are used to name the black key to the LEFT of a note. Look at the keyboard in Figure 10. G # is the same as A♭ (A flat). A # is the same as B♭. C # is the same as D♭. And so on. A flat LOWERS the pitch of a note the same amount as a sharp raises it."

"So if you want to play a song from another book, and that song has flats in it, use your SHARP keys for any flat notes. If a song calls for B♭, press A sharp (A +). If a song calls for D♭, press C sharp (C +). And so on."

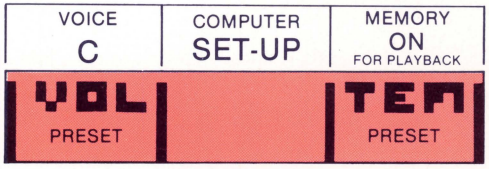
LET'S PLAY SOME SONGS WITH SHARPS

Being able to play sharps on your computer allows you to play many more songs than before. For instance, the well-known theme song from "Disney's Wonderful World," WHEN YOU WISH UPON A STAR, cannot be played without sharps.

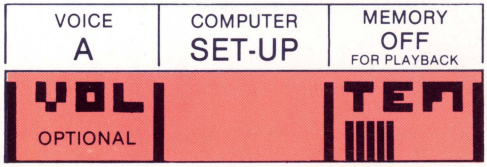
Try WHEN YOU WISH UPON A STAR first with the sharps. Then go back and change all the sharp notes to the same notes **without** sharps. Example: instead of A_2+ and $F+$, play A_2 and F. Use the Single Step editing technique that you learned on page 35. Now play the song back. It doesn't sound right without the sharps, does it?

WHEN YOU WISH UPON A STAR

Lyric by
NED WASHINGTON
Music by
LEIGH HARLINE



OPTIONAL



C	C_2	A_2+	A_2	$F+$	G_2	D_2	—
When	you	wish	u —	pon	a	star	(rest)
E	E_2	D_2	C_2	B_2	C_2	F_2	—
Makes	no	diff–'rence		who	you	are	(rest)
G_3	F_2	E_2	D_2	C_2	A_2+	A_2	G_2
An —	y —	thing	your	heart	de–sires		will
D_2	—	E	—	F			
come	(rest)	to	(rest)	you.			

MEMORY COUNTER SHOWS: 29

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Try the same experiment with this little song:

BE KIND TO YOUR WEB-FOOTED FRIENDS

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM

G_2	—	G_2	—	F	E	E	—	D+	E	E
Be	(rest)	kind	(rest)	to	your	web—	(rest)	foot—	ed	friends
—	2	—	2	—						
(rest)	(SE)	(rest)	(SE)	(rest)						
D+	E	E	—	D+	E	G_2	—	E	G_2	F
For	a	duck	(rest)	may	be	some—	(rest)	bod—	y's	moth—
—	1	—	D							
(rest)	(SE)	(rest)	— er.							

MEMORY COUNTER SHOWS: 31

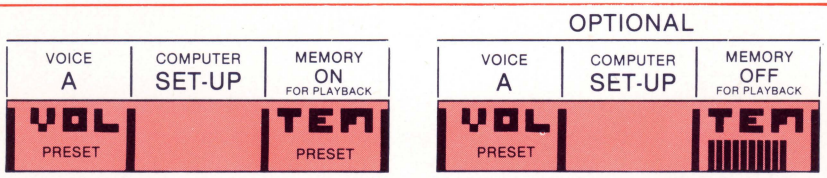
"Remember... SE means Special Effect."

MUSICAL SCALES

Sharps are also necessary to play most musical scales. You've probably sung "Do re me fa sol la ti do" in school. This is a SCALE. (The notes get higher as you sing the scale.)

The first scale shown in Figure 11 is called the C major scale, because it STARTS and ENDS on the C note. It's also an "octave" because it contains 8 notes. The C major scale is the ONLY scale that does not need any sharps. ALL the others do.

Play and enter all 4 scales shown with 4 rests in between each scale. Then, push **PLAYBACK KEY** and listen.



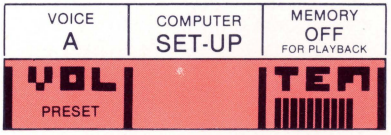
Sing:	Do	Re	Me	Fa	Sol	La	Ti	Do	— — — —
C Major Scale:	C	D	E	F	G_2	A_2	B_2	C_2	— — — —
D Major Scale:	D	E	F+	G_2	A_2	B_2	C_2+	D_2	— — — —
E Major Scale:	E	F+	G_2+	A_2	B_2	C_2+	D_2+	E_2	— — — —
F Major Scale:	F	G_2	A_2	A_2+	C_2	D_2	E_2	F_2	— — — —

MEMORY COUNTER SHOWS: 48

Figure 11

Did you notice that even though each scale is made up of different notes, the scales sounded alike. Each scale just sounded higher than the one before.

In the same way, songs can be played with different notes and still sound alike. CLEAR the memory, then enter BE KIND TO YOUR WEB-FOOTED FRIENDS as it is on page 40. Now enter 2 rests, then the same song as it is below.



B_2	—	B_2	—	A_2	G_2+	G_2+	—	G_2	G_2+	G_2+	
Be	(rest)	kind	(rest)	to	your	web	–(rest)	foot	– ed	friends	
—	2	—	2	—							
(rest)	(SE)	(rest)	(SE)	(rest)							
G_2	G_2+	G_2+	—	G_2	G_2+	B_2	—	G_2+	B_2		
For	a	duck	(rest)	may	be	some	–(rest)	bod	– y's		
A_2	—	1	—	F+							
moth	–(rest)	(SE)	(rest)	– er							

MEMORY COUNTER SHOWS: 64

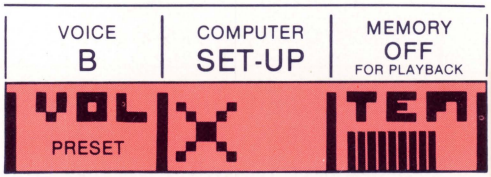
Now press PLAYBACK and listen. Even though both sets of notes are different, one sounds very much like the other. This is called playing in a different KEY.

SONG INTRODUCTIONS

An introduction (abbreviated—INTRO) is a short piece of music that is played before the actual song. It does just what its name says—it "introduces" the song to the listener.

Most of the time, an intro uses a part of the song that is very familiar. Since the end of a song often contains the same words found in the title, musicians frequently use the end of a song as its intro. The words are generally not sung during the intro. Only the melody notes are played.

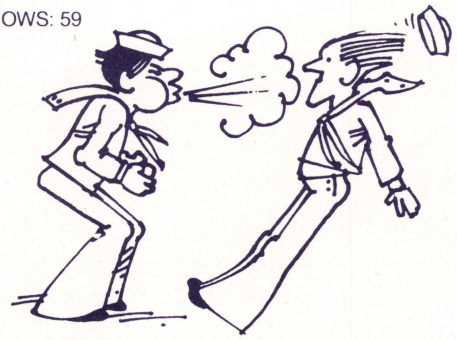
The song BLOW THE MAN DOWN is a good example of this. The title of the song is in the last line. You can use the last line as the INTRO.



BLOW THE MAN DOWN

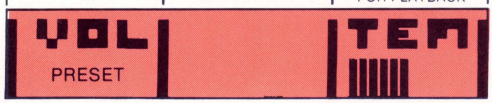
INTRO →	G_2	G_2	G_2	G_2	—	F	E	D	E	C	—		
(Same as last line)	G_2 Come	G_2 all	A_2 you	G_2 young	E fel–	C lows	E that	G_2 fol–	A_2 low	G_2 the	E sea	—— (rests)	
	G_2 Yeo!	— (rest)	— (rest)	A_2 Ho!	— (rest)	— (rest)	F Blow	E the	F Man	D Down!	— (rest)		
	F And	F please	G_2 pay	F at —	D ten–	B tion	D and	F lis–	G_2 ten	F to	D me	—— (rests)	
→	G_2 Give	G_2 us	G_2 some	G_2 time	— (rest)	F to	E Blow	D the	E Man	C Down!	— (rest)		

MEMORY COUNTER SHOWS: 59



Here's another song that uses the last line as the INTRO, even though it does not contain the words of the title. This English folk song, which is hundreds of years old, was recorded by Paul Simon and Art Garfunkel and was extremely popular in the mid 1960's.

VOICE	COMPUTER	MEMORY
C	SET-UP	OFF FOR PLAYBACK



SCARBOROUGH FAIR

INTRO (Same as last line) →

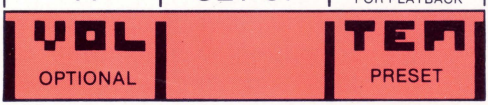
A	—	E	D	—	C	B	A	G	A	—	—
A	—	A	E	E	E	B	C	B	A	—	—
Are	(rest)	you	go	— ing	to	Scar	–bor	–ough	Fair:		(rests)
E	—	G_2	A_2	—	G_2	E	F+	D	E	—	A_2
Pars	–(rest)	–ley,	sage,	(rest)	rose	–mar	– y	and	thyme.	(rest)	Re–
A_2	—	A_2	G_2	—	E	E	D	C	B	—	B
mem	–(rest)	–ber	me	(rest)	to	one	who	lives	there.	(rest)	For
A	—	E	D	—	C	B	A	G	A	—	—
she	(rest)	once	was	(rest)	a	true	love	of	mine.		(rests)

MEMORY COUNTER SHOWS: 60

"Don't forget, you can use special effects in place of rests. Enter the song again and replace all the rests with different special effects."

INTROS can also be entirely "made up" (composed) and used for many different songs. Remember this one? You heard it after you pressed START, when you first turned your computer on.

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK



G_2	F+	G_2	A_2	G_2	—	2	—	G_2	F+	G_2	A_2	G_2	—	3	—
G_2	G_2	—	G_2	A_2	—	A_2+	—	B_2	—	—	—	1	—	—	—

MEMORY COUNTER SHOWS: 32

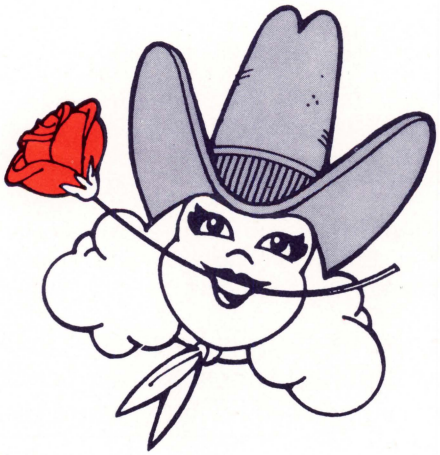
This intro goes well with faster songs, such as marches, polkas and fox trots—songs like YELLOW ROSE OF TEXAS; FARMER IN THE DELL; TA-RA-RA, BOOM-DER-E.

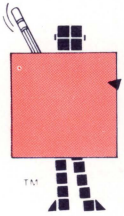
Here is another "made-up" intro that can be used with RED RIVER VALLEY; TAKE ME HOME, COUNTRY ROADS.

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

C_2 — C_2 B_2 A_2 — A_2 G_2 F — F E D — G —

MEMORY COUNTER SHOWS: 16



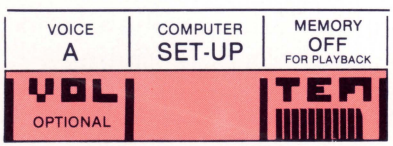


"You may have composed some songs of your own. Now try to compose INTROS for them. Don't forget to write down the songs and intros you compose. Use a plain letter for any notes in the bottom row of the overlay (G, A, etc). Write a 2 next to the letter for any notes in the top row of the overlay (G_2, A_2, etc.)."

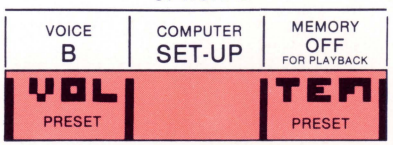
SUPER SONG ENDINGS

Every song has its own ending. To make a song even more interesting, however, many times a musician will add an extra ending. These are some well-known ones.

1.



OPTIONAL

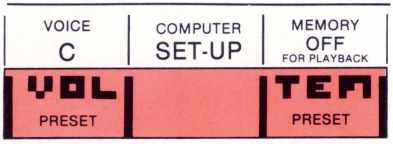


C — G G G+ — G — — — B — C
Shave (rest) and a hair - (rest) cut, (3 rests) two (rest) bits.

MEMORY COUNTER SHOWS: 13

This a good ending to use with songs that are medium fast or faster, such as polkas or marches. CAMPTOWN RACES, I'VE BEEN WORKING ON THE RAILROAD, JINGLE BELLS, OLD MACDONALD, WHEN THE SAINTS GO MARCHING IN, or YANKEE DOODLE are examples from your main Computer Activity Book.

2.



G A G A+ A+ A+
Good eve — ning friends ———

MEMORY COUNTER SHOWS: 6

Use this one with slower songs, such as AURA LEE or ALL THROUGH THE NIGHT.

3.

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM

G_3 G_3 — G_3 D_2+ E_2 — C_2 — — — C+ C+

MEMORY COUNTER SHOWS: 14

This is Zoots's ending from the "Muppet Show" and can be used for the same type of songs as Ending 1.

4.

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

OPTIONAL

VOICE	COMPUTER	MEMORY
B	SET-UP	OFF FOR PLAYBACK
VOL PRESET		TEM PRESET

OPTIONAL

VOICE	COMPUTER	MEMORY
C	SET-UP	OFF FOR PLAYBACK
VOL PRESET		TEM

C C+ D D+ E F F+ G_2 G_2+ A_2 A_2+ B_2 C_2
— — G_2 A_2 G_2 C

MEMORY COUNTER SHOWS: 19

This ending was made famous by the Lawrence Welk orchestra and can be used with "bouncy" dance tunes. Try it with ALL MY LOVING, EVERYTHING IS BEAUTIFUL, GOOD NIGHT LADIES and MICHELLE. These songs are in your main Computer Activity Book.

"Try and compose some of your own endings and add them to songs you may have already written."

GETTING BACK TO CHORDS

On page 22 you learned that your computer can play chords. But what are chords?

If you've ever watched someone play the piano or guitar, you've probably seen them playing chords—even if you didn't know it.

TURN YOUR COMPUTER MEMORY ON, and press CLEAR. Then press CHORD KEY. The screen will change to the STATUS SCREEN and this symbol will appear.

Status Screen

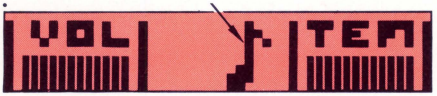
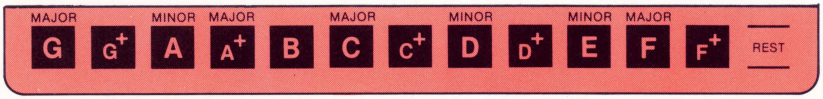


Figure 12

Look at the bottom row of keys on your keyboard overlay. Seven of these keys have the word MAJOR or MINOR above them. These are the ONLY keys that will produce chords when you press them.



Press each of these keys. The screen will change back to the DISPLAY SCREEN and you will see THE FIRST NOTE OF THE CHORD on the top line. When you press G-MAJOR CHORD, you will see the note G on the screen.

Listen as you press these keys. You will hear 3 notes for each key instead of 1 note. This is a BASIC CHORD. A chord is a combination of 3 or more notes that come from a particular musical scale. (Remember musical scales from page 40?)

Your computer plays 3-note "broken" or "strummed" chords; that is, one note at a time, as they would be played on a trumpet or guitar. On a piano or organ, the notes of the chord can all be played at the same time.

NOTICE THE MEMORY COUNTER AS YOU PLAY CHORDS. Even though there are 3 notes in a chord, the entire chord only counts as 1 note on the memory counter. So you can fit 64 chords in the memory.

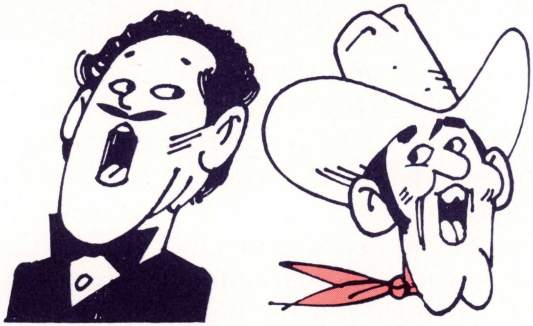
CHANGES YOU CAN MAKE IN COMPUTER CHORDS

You can do anything with a chord that you can do with a single note. YOU CAN EDIT (CHANGE) CHORDS, using any of the methods we told you about on page 33.

You can use chords in SINGLE STEP and LEARN modes, just as you can single notes. In LEARN mode, the first note of the chord shows on the screen. When you press that note key, you hear the chord.

YOU CAN ALSO CHANGE VOLUME, TEMPO AND VOICE on chords. Volume changes work the same for chords as they do for single notes.

SOME TEMPOS are different in chords than in single notes. FAST tempos affect the entire chord. (All 3 notes are equally fast.) SLOW tempos only affect the **first note** of the chord. So you hear a long, slow first note, then 2 faster notes.



SOME VOICES are also different in chords than in single notes. VOICE A affects the entire chord. (All 3 notes sound the same.) VOICES B and C only fully affect the **first note** of the chord. The other 2 notes have less of the voice. For example, in VOICE B, the first note has a definite "echo." The second and third notes have less "echo."

You can play with different voices and tempos to get lots of different sounding chords.

WHERE DO CHORDS COME FROM?

There are two different kinds of chords on your computer, MAJOR and MINOR. MAJOR CHORDS are made up of the 1st, 3rd and 5th notes of MAJOR SCALES. You've already learned these major scales on page 40.

C MAJOR SCALE =	**C**	**D**	**E**	**F**	**G_2**	**A_2**	**B_2**	**C_2**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
C MAJOR CHORD =	**C**		**E**		**G_2**			

The 1st, 3rd and 5th notes of the C major scale are C, E and G_2—the notes of the C major chord.

F MAJOR SCALE =	**F**	**G_2**	**A_2**	**A_2+**	**C_2**	**D_2**	**E_2**	**F_2**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
F MAJOR CHORD =	**F**		**A_2**		**C_2**			

The 1st, 3rd and 5th notes of the F major scale are F, A_2 and C_2—the notes of the F major chord.

MINOR CHORD notes come from the 1st, 3rd and 5th notes of MINOR SCALES. These scales are slightly different than major scales. In fact, only the 3rd and 6th notes are different. MINOR chords are written with a small **m** beside the first note of the chord.

DIFFERENT NOTES

D MAJOR SCALE =	**D**	**E**	**F+**	**G_2**	**A_2**	**B_2**	**C_2+**	**D_2**
D MINOR SCALE =	**D**	**E**	**F**	**G_2**	**A_2**	**A_2+**	**C_2+**	**D_2**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
D MINOR CHORD =	**D**		**F**		**A_2**			

E MAJOR SCALE =	**E**	**F+**	**G_2+**	**A_2**	**B_2**	**C_2+**	**D_2+**	**E_2**
E MINOR SCALE =	**E**	**F+**	**G_2**	**A_2**	**B_2**	**C_2**	**D_2+**	**E_2**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
E MINOR CHORD =	**E**		**G_2**		**B_2**			

HOW ARE CHORDS USED IN MUSIC?

A song contains 2 main ingredients:

The melody (with or without words);

The background, or **accompaniment.** The accompaniment usually has 3 parts:

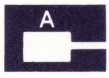
1. CHORDS AND CHORD PROGRESSIONS. In a band, chords can be played on a guitar, piano or organ. Chords can also be played by saxophones, clarinets or trumpets, but because these are all single-note instruments, at least three of each would be needed to play three-note chords.
2. THE LOW-SOUNDING BASS PART. In rock groups and small dance bands, the bass part is played on an electric bass. In a symphony orchestra and in many jazz bands, it is played on large bass fiddles. These instruments look like huge violins that stand on the floor. In marching bands, the bass part is played on tubas.
3. THE RHYTHM played on drums and other percussion instruments.

Up to now, you've mostly learned to play MELODIES of songs on your computer. Now let's take a look at the other half of the song—the ACCOMPANIMENT. First, let's look at chords and what they mean to a song.

SONGS AND CHORDS

When we hear a song being played, many times we like to sing, whistle or hum along. When we do this, we're singing the **melody**, the part everyone recognizes. However, at the same time, chords are usually **accompanying** the melody. We may not hear or recognize them. And yet, chords are very important to the melody, because the melody may be based on them or harmonize with them. (HARMONIZE means that the melody and chords are "pleasant sounding" together.)

You already have CHORDS on. Now CLEAR the memory, then press VOICE A KEY and enter each of these chords the number of times shown below. Put **REPEAT KEY** on to make it easier.



MAJOR
8 C CHORDS

MAJOR
8 G CHORDS

MAJOR
8 C CHORDS

MAJOR
4 G CHORDS, and

MAJOR
4 C CHORDS

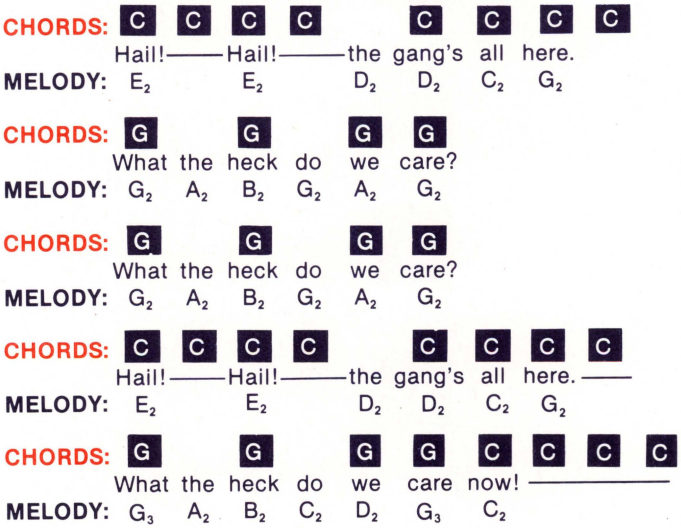
MEMORY COUNTER SHOWS: 32

Press **PLAYBACK KEY** and listen. It doesn't sound like much of anything, does it? However, this is the CHORD ACCOMPANIMENT to a very well-known song, HAIL, HAIL, THE GANG'S ALL HERE. This accompaniment is also known as a CHORD PROGRESSION, meaning that the chords follow each other in a certain pattern (or "sequence").

SING-ALONG WITH COMPUTER CHORDS

The words and melody notes to HAIL, HAIL, THE GANG'S ALL HERE are shown below. Notice that the chords you stored in the computer's memory are written above the words and melody notes in the song. SO YOU CAN EASILY RECOGNIZE THEM, CHORDS WILL ALWAYS APPEAR IN BLACK BOXES WITH WHITE LETTERS, AS THEY ARE ON YOUR OVERLAY.

HAIL, HAIL, THE GANG'S ALL HERE


CHORDS: C C C C C C C C
Hail! Hail! the gang's all here.
MELODY: E2 E2 D2 D2 C2 G2
CHORDS: G G G G
What the heck do we care?
MELODY: G2 A2 B2 G2 A2 G2
CHORDS: G G G G
What the heck do we care?
MELODY: G2 A2 B2 G2 A2 G2
CHORDS: C C C C C C C C
Hail! Hail! the gang's all here.
MELODY: E2 E2 D2 D2 C2 G2
CHORDS: G G G G C C C C
What the heck do we care now!
MELODY: G3 A2 B2 C2 D2 G3 C2

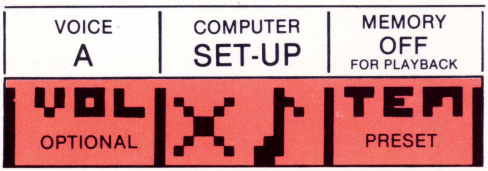
TURN YOUR COMPUTER MEMORY OFF, then play and sing the melody of this song, so you know how it goes.

Now, try singing the melody while the computer plays the chords. TURN THE MEMORY BACK **ON.** Press PLAYBACK KEY and sing the song again.

This time, sing each word as you hear the chord that is written above it. Sometimes you will have to pause while the computer plays a chord. Sometimes you will have to sing a word **in between** chords. Sing these words faster.

If you forget which note to start singing the song in, press the note (E_2) and hum it before you start. Then press DELETE so that you don't hear this note during playback.

See how important chords are? Try another song. CLEAR the memory, then ENTER THE CHORDS from THIS OLD MAN, below. Notice a small **m** next to the D chord in the last line of the song. This **m** is the abbreviation for **minor.** It means play the D-Minor chord. Whenever you see the letter for a chord, **without** the m, play the **major** chord.



THIS OLD MAN

CHORDS:	C		C		C	C	C		C		C		C						
	This		old		man	—	—		he		played		one	—					
MELODY:	G_2		E		G_2				G_2		E		G_2						
CHORDS:	F		F		F	F	G		G		G		G						
	He		played		knick	knack	on		his		thumb		with		a				
MELODY:	A_2		G_2		F	E	D		E		F		E		F				
CHORDS:	C		C		C		C		C				C			C		C	
	Knick,		knack		pat	—	ty		whack		give		the		dog	a		bone	—
MELODY:	G_2		C		C		C		C		D		E		F	G_2			
CHORDS:	Dm		Dm		Dm		Dm		G		G		C		C				
	This		old		man		came		rol	—	ling		home.	—					
MELODY:	G_2		D		D		F		E		D		C						

MEMORY COUNTER SHOWS: 32

Here are the chords to a song that's in your main Computer Activity Book. CLEAR the memory and ENTER THESE CHORDS. Listen to how they add a whole new sound to the song.

VOICE	COMPUTER	MEMORY
A	SET-UP	ON FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

OPTIONAL

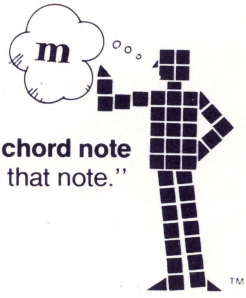
VOICE	COMPUTER	MEMORY
B	SET-UP	OFF FOR PLAYBACK
VOL PRESET		TEM PRESET

MICHAEL, ROW THE BOAT ASHORE

CHORDS:	—	—	C	C	C	C	C	C
	Mi—chael		row	the	boat	a – shore		
MELODY:	C	E	G_2	E	G_2	A_2	G_2	—
CHORDS:	C	C	F	F	F	F	C	C
	Hal – le –		lu				jah,	
MELODY:	E	G_2	A_2	—	—	—	G_2	—
CHORDS:	C	C	E_m	E_m	E_m	E_m	D_m	D_m
	Mi—chael,		row	the	boat	a—shore		
MELODY:	E	G_2	G_2	E	F	E	D	—
CHORDS:	D_m	D_m	C	C	G	G	C	C
	Hal – le –		lu				jah.	
MELODY:	C	D	E	—	D	—	C	—

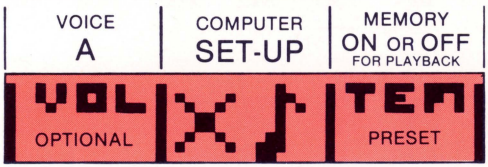
MEMORY COUNTER SHOWS: 32

CHORDS:	C	C	C	C	C	C	C	C
	Bro –	ther	lend	a	help –	ing	hand	——
MELODY:	C	E	G_2	E	G_2	A_2	G_2	—
CHORDS:	C	C	F	F	F	F	C	C
	Hal –	le –	lu	——	——	——	jah.	——
MELODY:	E	G_2	A_2	—	—	—	G_2	—
CHORDS:	C	C	Em	Em	Em	Em	Dm	Dm
	Bro—	ther	lend	a	help—	ing	hand	——
MELODY:	E	G_2	G_2	E	F	E	D	—
CHORDS:	Dm	Dm	C	C	G	G	C	C
	Hal –	le –	lu	——	——	——	jah.	——
MELODY:	C	D	E	—	D	—	C	—

MEMORY COUNTER SHOWS: 64 (both verses)

"Remember that a small **m** by a **chord note** means play the MINOR chord in that note."

There are many different kinds of CHORD PROGRESSIONS. You'll hear some of the same ones in different songs. Here are some popular ones.

FOR ALL EXAMPLES



1. C C Am Am Dm Dm G G

1st Repeat Sign — Repeat Sign

2. C C F F C C G G

3. C C Dm Dm Em Em Dm Dm

4. C C A+ A+ C C A+ A+

5. C C Em Em Dm Dm G G

REPEAT SIGN—When you come to a Repeat Sign at the **end** of a line, go back to the 1st Repeat Sign and play the line again.

See if you can make up your own melodies for these chord progressions. Sing or hum your melodies, while each chord progression is playing back. Play them back at different tempos and use different voices.

The songs in the back of this book also show the chords above the words. Try singing, humming, tapping or clapping along with the chord playback for each song.

TAP AND CLAP

In addition to singing or humming the melody along with the chords, you can try other things. Tap your foot or clap your hands each time the first note of the chord is played. Or, tap or clap as you sing each word. In this way, you'll be tapping or clapping "in tempo" with the chord playback. This is another example of the "pulse" of music.

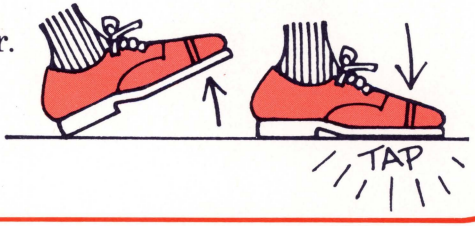
Before you read and learn about the next subject, RHYTHM, turn CHORDS **OFF.**

RHYTHM

The third part of an accompaniment is the RHYTHM. The drummer or percussion player usually gives the "rhythmic feel" or "pulse" to a song. (Earlier, we talked about bass as a separate part of the accompaniment, but actually the bass player also works very closely with the drummer, to produce the overall "rhythm section.")

Rhythm is a very important part of a song, for it's the "beat of the rhythm" that makes you want to tap your foot or snap your fingers. You may have heard someone say, "That song sure has a good beat!" Rhythm is the "heartbeat" of a song.

Tap your foot once on the floor. You have just tapped one "beat." Tapping twice is two beats, etc. Rhythms are made up of beats in certain patterns. Usually, these patterns keep repeating over and over.



Turn CHORDS OFF, CLEAR your computer's memory, then enter and playback this string of notes and special effects.

VOICE	COMPUTER	MEMORY
A	SET-UP	ON FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

C 4 4 G 4 4 C 4 4 G A B

C 4 4 G 4 4 C 4 4 G A B C

MEMORY COUNTER SHOWS: 25

Could you "feel" or hear a pattern? Set TEMPO AT 9 and play it back again. See if you can tap your foot along with the playback. Your computer is playing the WALTZ rhythm—a pattern of 3 beats. This is how the bass player and drummer would play a waltz.

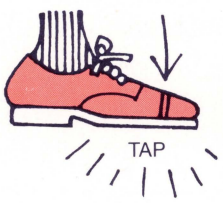
Here's the same example divided into groups of 3 beats.

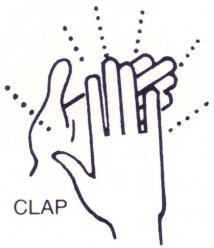
	C 4 4	G 4 4	C 4 4	G A B
BEATS:	1 2 3	1 2 3	1 2 3	1 2 3

	C 4 4	G 4 4	C 4 4	G A B	C
BEATS:	1 2 3	1 2 3	1 2 3	1 2 3	1

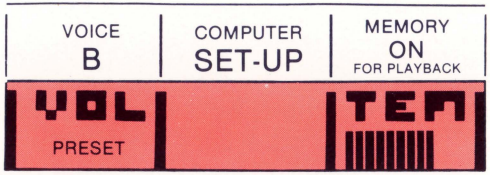
Play it back again but this time, **tap your foot** on each **1-beat** and **clap your hands** on the **2- and 3-beats.** Like this:

BEATS:	C	4	4
	1	2	3





Let's see how the waltz rhythm works in a song. Enter the following melody with special effects.



BEAUTIFUL BROWN EYES

MELODY:	E	E	E	C	D	E	F	2	2	F	2	2
	Beau	— ti	— ful,	beau	— ti	— ful	brown	---	---	eyes	---	---
BEATS:	1	2	3	1	2	3	1	2	3	1	2	3
	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap
MELODY:	E	E	E	C	D	E	D	2	2	G_2	2	F
	Beau	— ti	— ful,	beau	— ti	— ful	brown	---	---	eyes	---	---
BEATS:	1	2	3	1	2	3	1	2	3	1	2	3
	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap
MELODY:	E	E	E	C	D	E	F	2	2	F	2	F
	Beau	— ti	— ful,	beau	— ti	— ful	brown	---	---	eyes	---	I'll
BEATS:	1	2	3	1	2	3	1	2	3	1	2	3
	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap
MELODY:	G_2	D	F	E	E	D	C	2	2			
	Nev	— er	love	blue	eyes	a	— gain.					
BEATS:	1	2	3	1	2	3	1	2	3	1		
	Tap	Clap	Clap	Tap	Clap	Clap	Tap	Clap	Clap	Tap		

MEMORY COUNTER SHOWS: 46

Now play it back. During playback tap your foot or clap your hands on each beat, or do the TAP-CLAP-CLAP pattern. Try it a few times. See if your parents, brothers or sisters or friends can do it. Set the TEMPO FASTER and try it again.

A DIFFERENT RHYTHM

Here's a rhythm that uses a 4-beat pattern. This rhythm is used in FOX TROT, SWING, MARCH, POLKA and WESTERN music.

CLEAR memory and ENTER these notes and special effects.

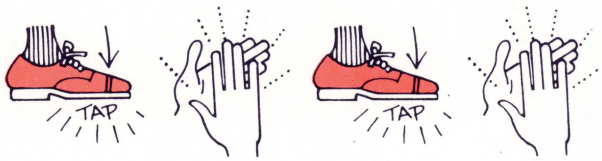
VOICE	COMPUTER	MEMORY
A	SET-UP	ON FOR PLAYBACK
VOL OPTIONAL		TEM

	C	2	G	2	C	2	G	2	C	2	G	2	C	2	G	2	C
BEATS:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1

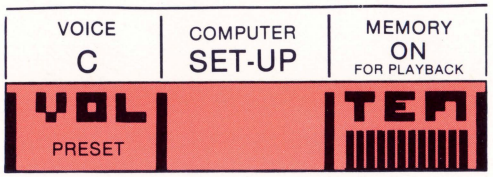
MEMORY COUNTER SHOWS: 16

To "feel" this pattern, you can TAP or CLAP on every beat, or TAP on beats 1 and 3 and CLAP on 2 and 4. Like this:

MELODY:	C	2	G	2
BEATS:	1	2	3	4



Now ENTER the MELODY NOTES of this polka



CAN CAN POLKA

RHYTHM PATTERN:	C	4	G	4	D	4	G	4	C	4	G	4	C	4	G	4
MELODY:	C	—	—	—	D	F	E	D	G_2	—	G_2	—	G_2	A_2	E	F
	Dance,				ev	ry	bod	y	can		can,		an	y	bod	y
BEATS:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
RHYTHM PATTERN:	D	4	G	4	D	4	G	4	C	4	G	4	D	4	G	4
MELODY:	D	—	D	—	D	F	E	D	C	C_2	B_2	A_2	G_2	F	E	D
	can		can,		you	be	gin	to	feel	the	rhy	thm	of	the	pol	ka
BEATS:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
RHYTHM PATTERN:	C	4	G	4	D	4	G	4	C	4	G	4	C	4	G	4
MELODY:	C	—	—	—	D	F	E	D	G_2	—	G_2	—	G_2	A_2	E	F
	Fun,				and	it's	noth	ing	fan		cy,		sim	ply	kind	of
BEATS:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
RHYTHM PATTERN:	D	4	G	4	D	4	G	4	C	4	D	4	C	4	C	4
MELODY:	D	—	D	—	D	F	E	D	C	G_2	D	E	C	—	C_2	—
	dan		cy,		catch	ing	on	a	cross	the	met	ro	pole.		Yeh!	
BEATS:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

MEMORY COUNTER SHOWS: 64

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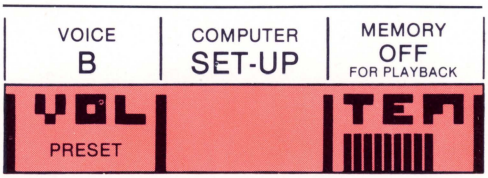
Then:

1. Play it back and sing the words along with the melody.
2. Play it back, TAP or CLAP on every beat. Watch out for the rests. Even though no sound is heard, they still get beats—TAP or CLAP on each one.
3. Play it back again and TAP-CLAP-TAP-CLAP.

Then CLEAR the memory and ENTER the RHYTHM PATTERN.

1. Sing the melody along with the rhythm pattern playback.
2. Play it back again and TAP or CLAP (or TAP-CLAP-TAP-CLAP) along with it.
3. SEE IF YOU CAN DO THIS ONE!
   Play the rhythm pattern back again and sing AND tap or clap at the same time!

BOOGIE



Some rhythms are more melodic than others. MELODIC means "containing a melody." The bass player plays the following melodic pattern for the BOOGIE rhythm. ENTER it and TAP along with the playback.

MELODIC PATTERN: C E G_2 A_2 | A_2 + A_2 G_2 E | C E G_2 A_2 | A_2 + A_2 G_2 E

BEATS: 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4

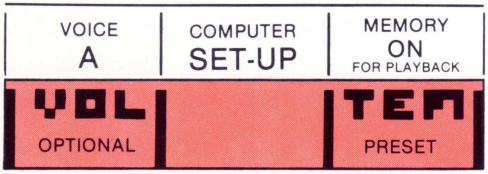
F A_2 C_2 D_2 | D_2 + D_2 C_2 A_2 | C E G_2 A_2 | A_2 + A_2 G_2 E
1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4

G_2 B_2 D_2 B_2 | F A_2 C_2 A_2 | C E G_2 A_2 | A_2 + A_2 G_2 E | C
1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1

MEMORY COUNTER SHOWS: 49

DISCO

A rhythm that has been very popular the last few years is DISCO. This rhythm has a heavy "thumping beat" created by the bass player and drummer. ENTER these notes, then playback and listen.



MELODIC PATTERN: ‖: C C G A | C C G A :‖
BEATS: 1 2 3 4 | 1 2 3 4

or

MELODIC PATTERN: ‖: C C F E | C C F E :‖
BEATS: 1 2 3 4 | 1 2 3 4

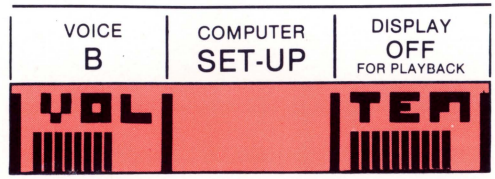
MEMORY COUNTER SHOWS: 8

Many of the new songs composed today are written especially for the disco rhythm. However, because of its simple nature, disco can be used with many types of songs, both new and old.

When it first became popular, disco was often used with songs that were popular many years ago, in the 1930's, '40's or '50's. Many of today's recording stars and rock groups took these old songs and re-recorded them with a disco rhythm. As a result, these old songs have become popular again. You have probably heard many of these songs on TV, radio and record albums, and never realized that they may have been written before your parents were born.

One of the first disco hits that used an old song was recorded by "The Ritchie Family." "BRAZIL" was written in 1939 and was originally a Latin American Samba. (See page 69 for the Samba rhythm.)

Here is the first part of "BRAZIL." First, input the melody and sing along with the playback. Then, CLEAR the memory and input the disco bass and sing the melody along with it.



BRAZIL (Aquarela do Brazil)

English Lyric by S. K. RUSSELL Music by ARY BARROSO

MELODY:	G_2	E_2	—	2	—	2	—	2	—	2	G_3	G_3	E_2	E_2	D_2	D_2	C_2		
	Bra	— zil								— where		hearts	were	en	— ter	— tain	— ing		
DISCO BASS:	—	C	C	G_2	A_2	C	C	G_2	A_2	C	C	G_2	A_2	C	C	G_2	A_2		
MELODY:		D_2	—	2	—	2	—	2	—	2	G_3	G_3	E_2	E_2	D_2	D_2	C_2		
		June,								— We		stood	be—	neath	an	am	— ber		
DISCO BASS:		D	D	A_2	B_2	D	D	A_2	B_2	G	G	D	E	G	G	D	E		
MELODY:		D_2	—	2	—	2	—	2	—	2	G_3	G_3	E_2	E_2	D_2	D_2	C_2		
		moon								— and		soft —	ly	mur-mured		"Some-day			
DISCO BASS:		D	D	A_2	B_2	D	D	A_2	B_2	G	G	D	E	G	G	D	E		
MELODY:		E_2	—	2	—	2													
		soon."																	
DISCO BASS:		C	C	G_2	A_2	C													

MEMORY COUNTER SHOWS: 54

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"In the SONGS TO PLAY section of this Activity Book is another older song (originally written as a waltz), that has been re-written with a disco bass rhythm. It is "I'M POPEYE THE SAILOR MAN," disco version."

ROCK

During the 1950's, a new kind of music was born. At that time it was quite a sensation. People said, "It's outrageous!" It's too loud." "That's not music." "It's only a fad—it will be gone in a year." And so on.

But ROCK 'N ROLL (today it's just called ROCK) is still around. And though it has gone through many changes, it is more popular than ever.

Rock's main feature is "the beat." And there's something different in this beat. TAP your foot again. Notice that **in between** each TAP (beat) your toes are raised.

START-BEATS:	1	and	2	and	3	and	4	and
	DOWNBEAT	UPBEAT	DOWNBEAT	UPBEAT	DOWNBEAT	UPBEAT	DOWNBEAT	UPBEAT

As you can see, each TAP has two parts—a DOWNBEAT and an UPBEAT. The downbeats have numbers; the upbeats have the word "and."

TAP and count aloud the four beats shown—1 and 2 and 3 and 4 and. Do it in a steady and even manner.

Now ENTER these notes and special effects. Then, play them back and TAP AND COUNT along. Use Voice A, Tempo 9, Memory ON for playback.

MELODIC PATTERN:	**C**	**2**	**C**	**2**	**C**	**2**	**C**	**2**
BEATS:	**1**	**and**	**2**	**and**	**3**	**and**	**4**	**and**
YOU DO:	**TAP**		**TAP**		**TAP**		**TAP**	

MEMORY COUNTER SHOWS: 8

The basic ROCK beat uses notes, special effects and rests. ENTER the following pattern. Use Voice B, Tempo 9, Memory ON for playback. Repeat the pattern as many times as you like.

MELODIC
PATTERN: C 2 2 C C — 2 — C 2 2 C C — 2 —

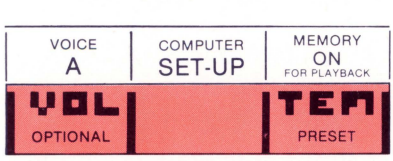
BEATS: 1 and 2 and 3 and 4 and 1 and 2 and 3 and 4 and

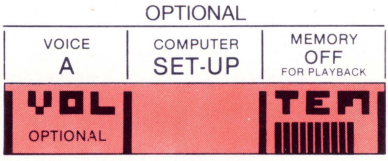
YOU DO: TAP TAP TAP TAP TAP TAP TAP TAP

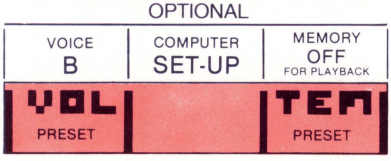
MEMORY COUNTER SHOWS: 16

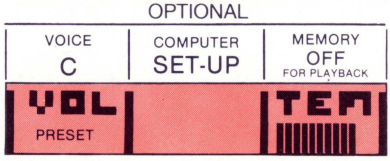
Play this pattern back and listen to it. Then play it back again and try counting the beats as you listen. Also, TAP along with the playback. Do this several times—it will become easier the more times you do so. Then, increase the TEMPO and try it again. Also try it with MEMORY OFF.

The rock beat can be done in several ways. Try these. You can repeat each pattern as many times as you wish. PLAYBACK each example, using each suggested VOICE and TEMPO setting shown.









C 2 2 C C — 2 — | G 2 2 G G — 2 —
1 and 2 and 3 and 4 and | 1 and 2 and 3 and 4 and

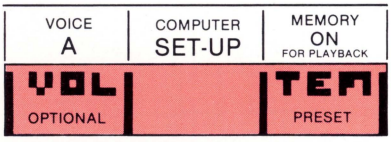
C 2 2 G G — 2 — | C 2 2 G G — 2 —
1 2 3 4 | 1 2 3 4

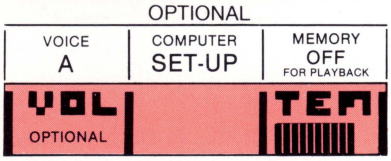
C C A+C — — 2 — | C C A+C — — 2 —

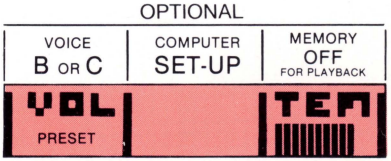
C C A+C — — 2 — | G_2 G_2 F G_2 — — 2 —

LATIN AMERICAN RHYTHMS

There are other types of popular rhythms that use notes, rests and special effects on the **upbeat**—The LATIN AMERICAN rhythms. Some of these are the BOSSA NOVA, BEGUINE (pronounced beg-EEN), SAMBA, TANGO and CHA-CHA. Use either VOICE setting shown for all examples, except Samba. For Samba, use the special setting shown.

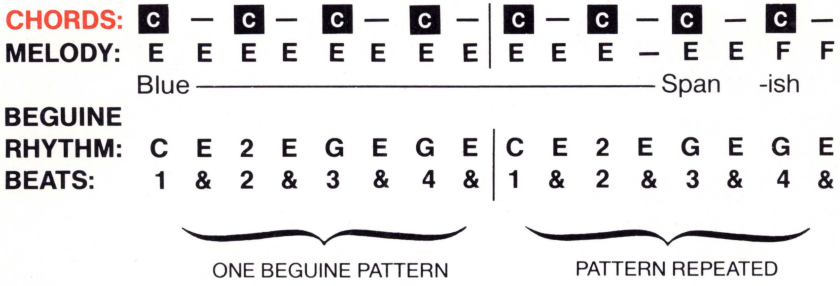






BEGUINE: ‖: C E 2 E G E G E :‖
BEATS: 1 and 2 and 3 and 4 and

The Beguine rhythm can be used with "SPANISH EYES" in the SONGS TO PLAY section. Here is how to match the rhythm with the music—the first line of the song is shown.


CHORDS: C – C – C – C – C – C – C – C –
MELODY: E E E E E E E E E E E – E E F F
Blue Span -ish
BEGUINE
RHYTHM: C E 2 E G E G E C E 2 E G E G E
BEATS: 1 & 2 & 3 & 4 & 1 & 2 & 3 & 4 &
ONE BEGUINE PATTERN
PATTERN REPEATED

This same pattern of notes is repeated over and over as long as the C chord appears above the melody. As you learned in the GETTING BACK TO CHORDS section (page 47), different chords are made up of different notes. Therefore, when you get to the G chord in the fourth line, enter these notes:

CHORDS: G — G – G – G – | G – G – G – G –
MELODY: F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 | F_2 F_2 F_2 F_2 F_2 F_2 F_2 —

BEGUINE
RHYTHM: D F 2 F G F G F | D F 2 F G F G F
BEATS: 1 & 2 & 3 & 4 & | 1 & 2 & 3 & 4 &

ONE BEGUINE PATTERN — PATTERN REPEATED

This pattern repeats as long as the G chord appears. For the F chord, keep repeating these notes:

F CHORD ‖: F A_2 2 A_2 C A_2 C A_2 :‖

The Cha-Cha, Bossa Nova, Tango and Samba rhythms can also be used with "SPANISH EYES." Use the following notes for the different chords.

CHA-CHA

Beats: 1 and 2 and 3 and 4 and
C CHORD = ‖: C — C — G G G 2 :‖
G CHORD = ‖: G_2 — G_2 — D D D 2 :‖
F CHORD = ‖: F — F — C C C 2 :‖

BOSSA NOVA

C CHORD = ‖: C 2 2 F+ G_2 2 2 B :‖
G CHORD = ‖: G_2 2 2 C_2+D_2 2 2 F+ :‖
F CHORD = ‖: F 2 2 B_2 C_2 2 2 E :‖

TANGO

C CHORD = ‖: C – C – C – C G :‖

G CHORD = ‖: G_2 – G_2 – G_2 – G_2 D :‖

F CHORD = ‖: F – F – F – F C :‖

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

SAMBA

C CHORD = ‖: C – – C C – – – | G – – G G – – – :‖

G CHORD = ‖: G_2 – – G_2 G_2 – – – | D – – D D – – – :‖

F CHORD = ‖: F – – F F – – – | C – – C C – – – :‖

SOMETHING DIFFERENT— THE LEARNING GAME!

Here's a fun game that you can use to test yourself, your friends, mom and dad or brothers or sisters! It's called the LEARNING GAME and any number of people can play.

1. Decide who will go first—other players go to a different room.

2. Starter enters any song. To make it more difficult for the other players, enter parts of different songs or make up a song as you go along. Also, use special effects. Write down the number on the Memory Counter when finished.

3. Call the other players back. Press LEARN to get to Learn Mode. Now each player takes turns trying to play back all the notes entered. Watch each playback and write down the number of mistakes, if any.

4. After all players are done, CLEAR the computer's memory. Next player then enters his or her choice. Each player should enter the same total number of notes, rests and/or special effects, as the starter did. In other words, if the Memory Counter showed 24 when the starter entered a song, it should show 24 when the next player enters a song. The reason: If someone enters a longer song, there are more chances for mistakes by the other players.

5. THE WINNER—The player with the least total number of mistakes, after everyone has entered a song.

HARD VERSION

Play the Learning Game as you did above, but this time add another step. After you play back each note in the song, write that note in the correct space on the musical staff. There are sheets of staff paper in the back of this Activity Book. If you need a reminder of where notes belong on the musical staff, check back to page 37, Figure 8. But put it away when you actually play the game. Use it again to check your answers.

REMEMBER TO TURN YOUR COMPUTER OFF WHEN YOU ARE FINISHED USING IT. If you leave it on and DON'T have anything stored in memory, it will shut itself off after 1½ minutes. If you DO have notes stored in memory, it will BEEP-BEEP at you every 1½ minutes to remind you that it's still on.

SONGS TO PLAY

This next section contains familiar and fun songs for you to play and enjoy. Many can be **completely** stored in the computer's memory for PLAYBACK all at one time. Others, because of being very long, are stored and played back in **sections.** The first section to be stored and played back is indicated by ❶; the second ❷, and so on. YOU CAN ALSO PLAY ALL OF THESE SONGS WITHOUT STORING THEM IN MEMORY.

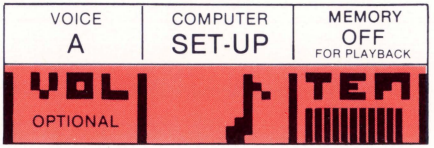
In addition, many songs have chords and/or bass rhythm parts. Enter and PLAYBACK either as you hum or sing the melody.

Every song also has a suggested COMPUTER SET-UP. If the song has chords, there's a separate SET-UP.

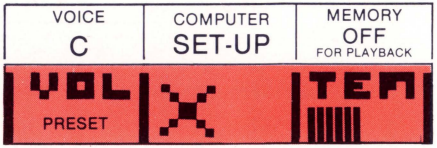
"These COMPUTER SET-UPS are suggestions. If you want to experiment and change something, go ahead. Be creative and have fun!"

SONGS TO PLAY SECTION

CHORDS



MELODY



ALOHA OE

Words and Music by QUEEN LILIUOKALANI

CHORDS: – F – F – F – F – C – C – C – C

MELODY: G A – C – F F F A G – C – E E E

A—lo——ha——Oe, A—lo——ha——Oe,

– G – G – G – G – C – C – C – C

C B A B C D D F F E E E E C C C

We'll ne'er for-get the love-ly land of flow——ers,

– F – F – F – F – C – C – C – C

G A – C – F F F A G G C C E E E

One fare——well kiss be-fore we say good-bye,

– G – G – G – G – C

C B – – C E D – B C

Un—til we meet a-gain.

MEMORY COUNTER SHOWS: 58

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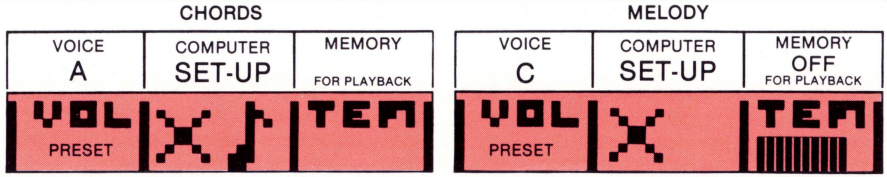
Input and PLAYBACK this song in 4 sections as shown by the numbers

❶❷❸❹



SPANISH EYES

Lyric by CHARLES SINGLETON and EDDIE SNYDER Music by BERT KAEMPFERT

CHORDS:
MELODY:

❶ C _ C _ C _ C _ C _ C _ C _ C _ C _ C _ C

E E E E E E E E E E E — E E F F G_2

Blue ——— Span ——— ish eyes

_ C _ C _ C _ C _ C _ C _ C _ C _ C _

G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 —

C _ C _ C _ C _ C _ C _ C _ C _ C _ G

E — E F G_2 — A_2 — B_2 — C_2 — D_2 — E_2 — F_2

Tear drops are fall ——— ing from your Span ——— ish eyes

_ G _ G _ G _ G _ G _ G _ G _ G _ G _

F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 F_2 —

MEMORY COUNTER SHOWS: 64

❷ G _ G _ G _ G _ G _ G _ G _ G _ G _ G _ G _

D D D D D D D D D D D — D D E E F F

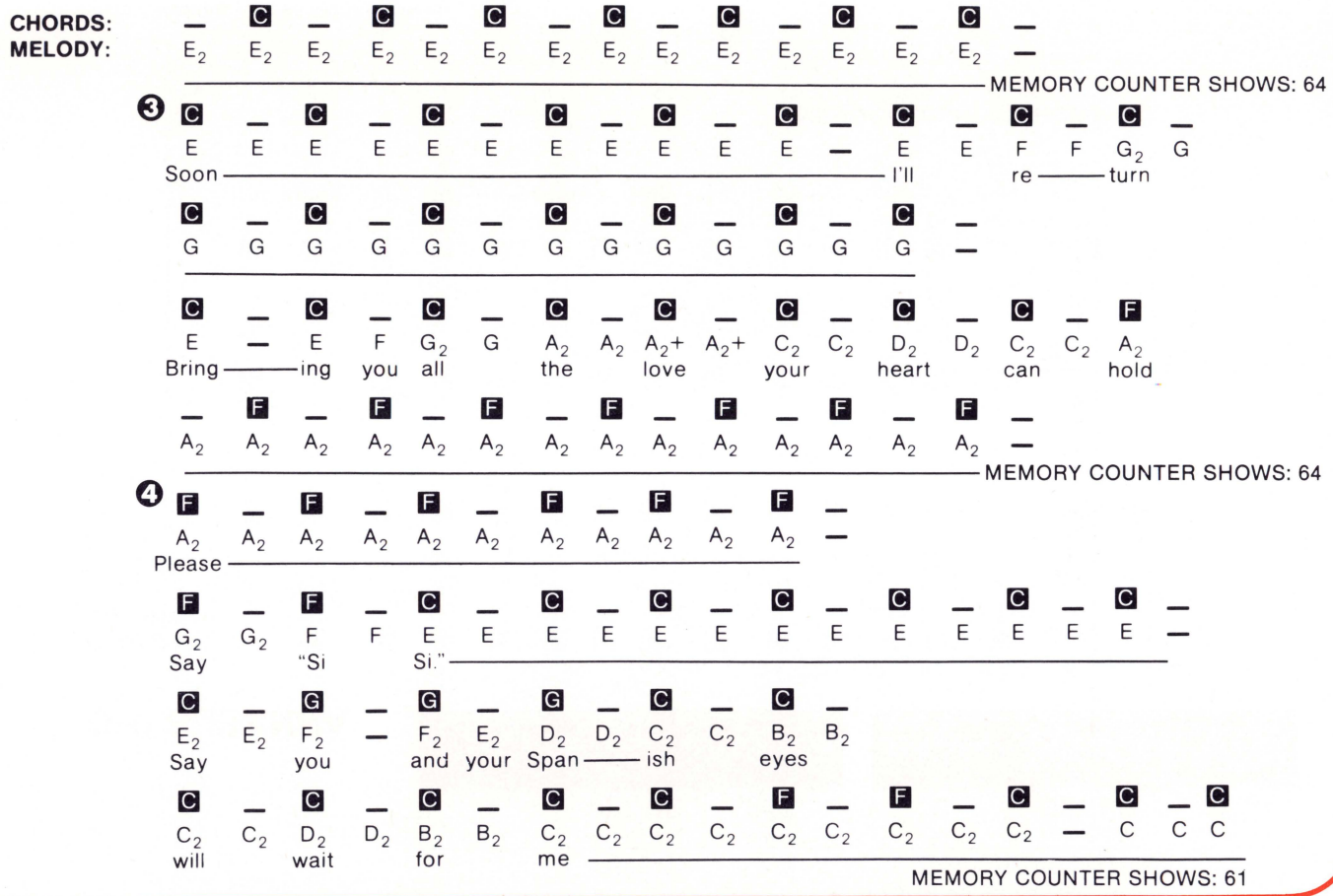
Please ——— please don't cry

G _ G _ G _ G _ G _ G _ G _ G _ G _ G _ G _

F F F F F F F F F F F F F F F —

G _ G _ G _ G _ G _ G _ G _ G _ G _ C

D E F F G_2 G_2 A_2 A_2 B_2 B_2 C_2 C D_2 D_2 E_2



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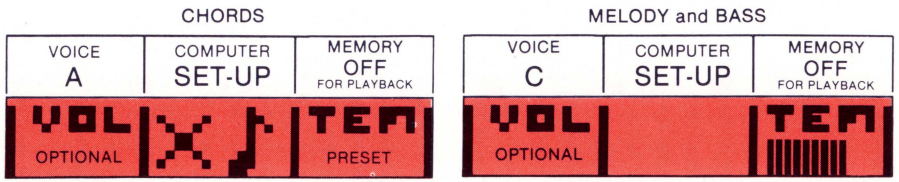
OH! SUSANNA



CHORDS: — C C C F C C C C C E E D C G G G
MELODY: C E G_2 G_2 A_2 G_2 E C D E E D C D 2 2
I came from Al — a — bam — a with my ban — jo on my knee,
BASS: — C 2 G 2 C 2 G 2 C 2 G 2 D 2 G

G C C C F C C C G C C G G C C C C
C E G_2 G_2 A_2 G_2 E C D E E D D C — 2 —
I'm goin' to Lou' — si — an ——— a, my true love for to see.
B C 2 G 2 C 2 G 2 C 2 G 2 C C D E

F F F F F F F F C C C C G G G
F — F — A_2 A_2 — A_2 G_2 G_2 E C D 2 2
Oh! Su ——— san — na, Oh, don't you cry for me,
F 2 C 2 F F E D C 2 G 2 D 2 G

G C C C F C C C G C C G G C C C
C E G_2 G_2 A_2 G_2 E C D E E D D C — C_2
I've come from Al — a — bam — a with my ban — jo on my knee.
2 C 2 G 2 C 2 C 2 C 2 G 2 C G C

MEMORY COUNTER SHOWS: 64

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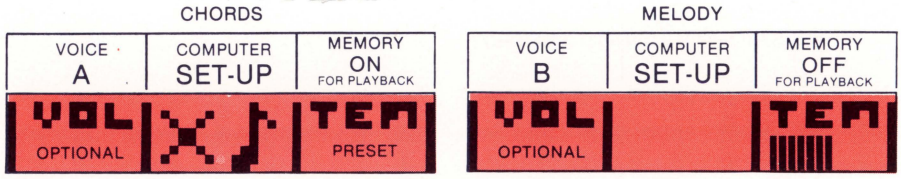

AURA LEE

CHORDS:	C	C	C	C	F	F	F	F	G	G	G	G	C	C	C	C
MELODY:	G	C	B	C	D	A	D	3	C	B	A	B	C	2	3	2
	As	the	black—bird		in	the	spring,		'neath	the	wil—low		tree,			
	C	C	C	C	F	F	F	F	G	G	G	G	C	C	C	C
	G	C	B	C	D	A	D	3	C	B	A	B	C	—	—	—
	Sat	and	peeped,	I	heard	him	sing,		Sing	of	Au—ra		Lee.			
	C	C	C	C	C	C	C	C	G	G	G	G	C	C	C	C
	E	E	E	—	E	E	E	—	E	D	C	D	E	—	2	—
	Au—ra		Lee,		Au—ra		Lee,		Maid	of	gold—en		hair,			
	C	C	C	C	F	F	F	F	G	G	G	G	C	G	C	
	E	E	F	E	D	A	D	D	C	B	A	B	C	2	C_2	
	Sun	shine	came	a—long		with	thee,	and	swal—lows		in	the	air.			

MEMORY COUNTER SHOWS: 63

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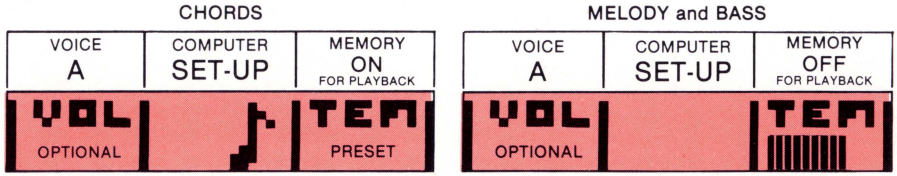
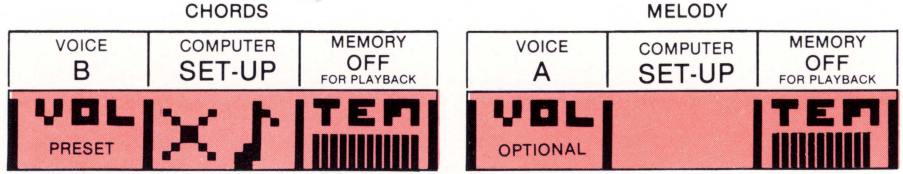


YELLOW ROSE OF TEXAS

CHORDS:	—	—	C	—	C	—	C	—	C	—	C	—	C	—	C	—	C
MELODY:	G_2	F	E	G_2	G_2	G_2	A_2	G_2	—	F	E	G_2	C_2	D_2	E_2	—	—
	There's	a	yel—	low	rose	in	Tex—	as		I'm	go—	ing	there	to	see,		
BASS:	—	—	C	2	G	2	C	2	G	2	C	2	G	2	C	2	B
	—	G	—	G	—	G	—	G	—	G	—	G	—	G	—	G	
	E_2	E_2	G_2	G_2	E_2	E_2	D_2	—	C_2	B_2	C_2	D_2	E_2	D_2	—	—	
	no	oth—	er	fel—	low	knows	her,		no—	bod—	y	else	'cept	me,			
	A	G	2	B	2	G	2	D	2	G	2	B	2	G	G	A	
	—	C	—	C	—	C	—	C	—	C	—	C	—	C	—	C	
	G_2	E	G_2	G_2	G_2	A_2	G_2	—	F	E	G_2	C_2	D_2	E_2	—	—	
	She	cried	so	when	I	left	her,		It	broke	her	lov—	ing	heart			
	B	C	2	G	2	C	2	G	2	C	2	G	2	C	2	E	
	—	F	—	F	—	C	—	C	—	G	—	G	—	C	—	C	
	G_2	A_2	F_2	F_2	F_2	F_2	E_2	D_2	C_2	C_2	G_2	E_2	D_2	C_2	—	2	
	and	if	we	ev—	er	meet	a—	gain	we'll	nev—	er,	nev—	er	part.			
	2	F	2	F	2	C	2	C	2	G	2	A	B	C	G	C	

FARMER IN THE DELL



CHORDS: – **C** – – **C** – – **C** – – **C** –
MELODY: G C – C C – C C – 2 2 –
The farm — er in the dell

– **C** – – **C** – – **C** – – **C** – –
D E – E E – E E – 1 1 – 2
The farm — er in the dell

C – – **C** – – **C** – – **C** –
G_2 – – G_2 – A_2 G_2 – E C –
Hi ho the mer — rie o,

– **C** – – **G** – – **C** – – **C**
D E – E D – D C – – 1
The farm — er in the dell.

2. The farmer takes a wife, etc.
3. The wife takes a child, etc.
4. The child takes the nurse, etc.
5. The nurse takes the dog, etc.
6. The dog takes the cat, etc.
7. The cat takes the rat, etc.
8. The rat takes the cheese, etc.
9. The cheese stands alone, etc.

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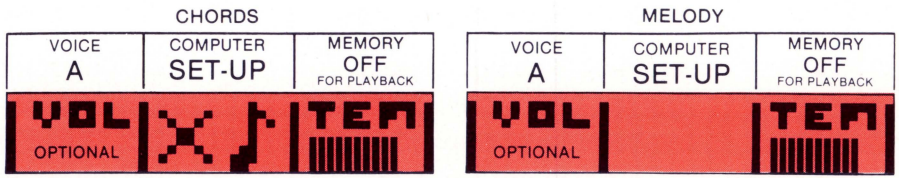
MEMORY COUNTER SHOWS: 47



FOR HE'S A JOLLY GOOD FELLOW

CHORDS: – C – – C – – F – – C –
MELODY: G_2 E – E E D E F – – E –
For he's a jol–ly good fel———low,

– G – – G – – C – – C –
E D – D D C D E – – C –
for he's a jol–ly good fel———low,

– C – – C – – F – – F –
G_2 E – E E D E F – G_2 A_2 –
for he's a jol–ly good fel———low,

– C – – G – – C – – C
A_2 G_2 A_2 G_2 F – D C – – C_2
that no–bo–dy can de–ny.

MEMORY COUNTER SHOWS: 47

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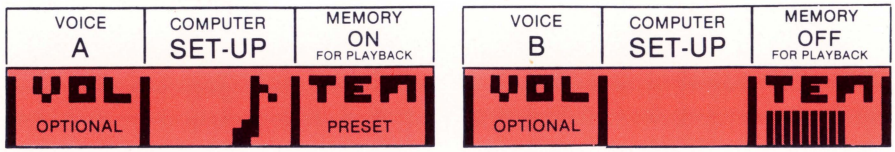
LAS CHIAPANECAS

(Mexican Hand-Clapping Song)



CHORDS: **C** – – **C** – – **G** – 1 1 2 2

MELODY: C C E G_2 E C B – A_2 G_2 – –

(CLAP! CLAP!)

BASS: C 2 2 E 2 2 G 2 1 1 2 2

G – – **G** – – **C** – 1 1 2 2

B B D F D B C – A_2 G_2 – –

(CLAP! CLAP!)

G 2 2 D 2 2 C 2 1 1 2 2

C – – **C** – – **G** – 1 1 2 2

C C E G_2 E C B – A_2 G_2 – –

(CLAP! CLAP!)

C 2 2 E 2 2 G 2 1 1 2 2

G – – **G** – – **C** – 2 2 1 1

B B D F D B C – G_2 C_2 – –

(CLAP! CLAP!)

G 2 2 D 2 2 C 2 G C 2 2

MEMORY COUNTER SHOWS: 48

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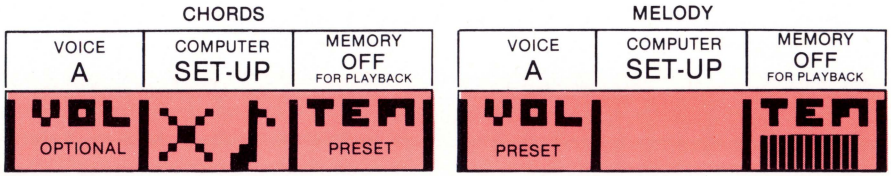

IRISH WASHERWOMAN

CHORDS: – – **C** – – **C** – – **C** – – **C**
MELODY: G_2 F E C C G C C E C E G_2

– – **Dm** – – **Dm** – – **G** – – **G**
F E F D D G D D F D F A_2

– – **C** – – **C** – – **C** – – **C**
G_2 F E C C G C C E C E G_2

– – **Dm** – – **G** – – **C** – – **C**
F E F E F D G_2 F E C C C

MEMORY COUNTER SHOWS: 48

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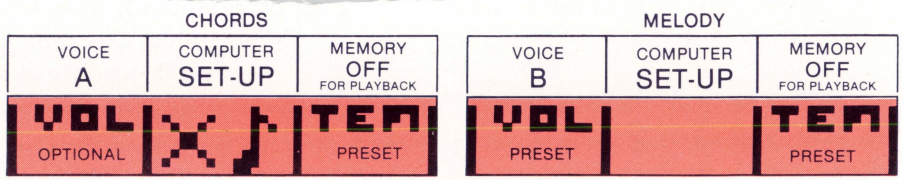

HUMORESKE

Music by Anton Dvorak

CHORDS: C – C – C – C – F – F – F – F –
MELODY: C D C D E G_2 A_2 G_2 C_2 B_2 D_2 C_2 B_2 D_2 C_2 A_2

C – C – C – C – G – G – G – G –
G_2 G_2 A_2 G_2 C_2 A_2 G_2 E D – A_2 – G_2 – D –

C – C – C – C – F – F – F – F –
C D C D E G_2 A_2 G_2 C_2 B_2 D_2 C_2 B_2 D_2 C_2 A_2

C – Em – G – Dm – C – G – C
G_2 G_2 E_2 G_2 F E_2 D_2 G C_2 – G_2 – C

MEMORY COUNTER SHOWS: 61

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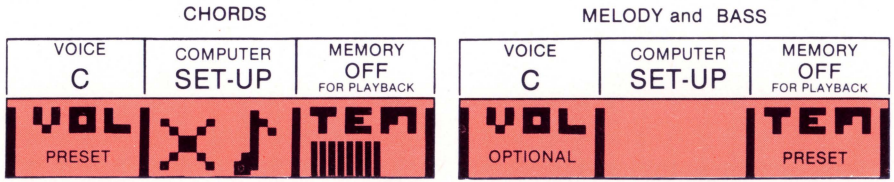
RED RIVER VALLEY



CHORDS: — — C — C — C — C — F — F — F —

MELODY: G C E — E D C — D C A C — — 3 —

1. From this val——ley they say you are go——ing

BASS RHYTHM: — — C 4 G 4 C 4 G 4 F 4 C 4 F 4

F — C — C — C — C — G — G — G —

G C E — C E G_2 — F E D — — — 1 —

we will miss your bright eyes and sweet smile

E D C 4 G 4 C 4 G 4 D 4 G 4 D G

G — C — C — C — C — F — F — F —

G_2 F E — E D C — D E G_2 F — — 4 —

for they say you are ta——king the sun—shine

A B C 4 G 4 C C D E F 4 C 4 F F

F — C — C — G — G — C — F — C

A A G — B C D — E D C G_2 A_2 G_2 C

that has bright——ened our path — way a — while

E D C 4 G 4 D 4 G 4 C E F B C

2. Come and sit by my side little darlin'
do not hasten to bid me adieu
just remember the Red River Valley,

MEMORY COUNTER SHOWS: 63

I'M POPEYE THE SAILOR MAN

Words and Music by SAMMY LERNER

CHORDS

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM

MELODY and DISCO BASS

VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM

CHORDS: — — C — C — G — G — C — C — C — C —
MELODY: E — G_2 G_2 — G_2 F — E — G_2 — 3 — 3 —
I'm Pop—eye the Sail——or Man
DISCO BASS: — — C C G_2 A_2 G G D E C C G_2 A_2 C C

C — F — F — F — F — C — C — C —
G_2 — A_2 F — A_2 C_2 — A_2 — G_2 — 3 — 3 —
I'm Pop—eye the Sail——or Man
G_2 A_2 F F C_2 D_2 F F C_2 D_2 C C G_2 A_2 C C

C — F — F — F — F — C — C — A — A
G_2 — A_2 F — A_2 C_2 B_2 — A_2 G_2 A_2 — G_2 E C —
I'm strong to the "Fin–ich" 'cause I eats me Spin–ach
G_2 A_2 F F C_2 D_2 F F C_2 D_2 C C G_2 A_2 A A E

— G — G — G — G — C — C — C
A G A_2 — G_2 F — B — C — 3 — 3
I'm Pop—eye the Sail——or Man
F+ G G D E G G D E C C G_2 A_2 C

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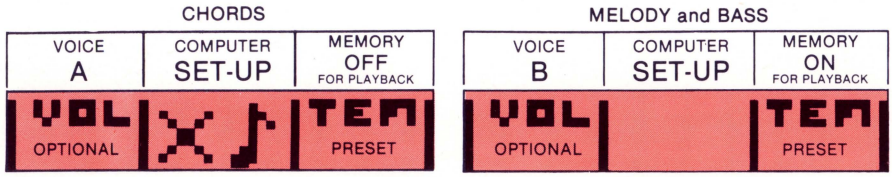
MEMORY COUNTER SHOWS: 63

ROW, ROW, ROW, YOUR BOAT



CHORDS: C — — C — — C — — C — — C — —
MELODY: C — — C — — C — D E — —
Row, row, row your boat
BASS RHYTHM: C — 2 G — 2 C — 2 G — 2

C — — C — — C — — C — —
E — D E — F G_2 — — 1 — —
gent——ly down the stream
C — 2 G — 2 C — 2 G — 2

C — — C — — C — — C — —
C_2 C_2 C_2 G_2 G_2 G_2 E E E C C C
Mer—ri—ly,—mer—ri—ly, mer—ri—ly,—mer—ri—ly
C — 2 G — 2 C — 2 G — 2

G — — G — — C — — C
G_2 — F E — D C — — C_2
Life is but a dream
D — 2 G — 2 C — — C

MEMORY COUNTER SHOWS: 46

SUNSHINE ON MY SHOULDERS

Words by JOHN DENVER Music by JOHN DENVER, MIKE TAYLOR and DICK KNISS

Play this song without entering into memory. Choose your own VOICE.

MELODY:

E G_2 — A_2 C_2 F_2 E_2 — D_2 C_2 D_2 E — E G_2 — A_2 C_2 F_2 E_2 D_2 C_2 D_2 —
Sun-shine on my shoul-ders makes me hap-py, Sun-shine in my eyes can make me cry.

E G_2 — A_2 C_2 F_2 E_2 — D_2 C_2 D_2 E_2 E G_2 — A_2 C_2 F_2 E_2 — C_2 D_2 C_2 —
Sun-shine on the wa—ter looks so love-ly, Sun-shine al—most al—ways makes me cry.

E G_2 A_2 G_2 C_2 G_2 C_2 D_2 F_2 E_2 — E E G_2 C_2 G_2 F_2 E_2 D_2 C_2 D_2 —
1. If I had a day that I could give you, I'd give to you a day just like to day.

If I had a tale that I could tell you, I'd tell a tale that's sure to make you smile.

E G_2 A_2 G_2 C_2 G_2 C_2 D_2 F_2 E_2 C_2 E E G_2 C_2 G_2 F_2 E_2 C_2 D_2 C_2 —
2. If I had a song that I could sing for you, I'd sing a song to make you feel this way.

If I had a wish that I could wish for you, I'd make a wish for sun shine all the while.

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CHORDS

VOICE	COMPUTER	MEMORY
A	SET-UP	ON FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

MELODY and BASS

VOICE	COMPUTER	MEMORY
C	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEM PRESET

SKATERS' WALTZ

CHORDS:	C	C	C	C	C	C	Dm	Dm	Dm	G	G	G
MELODY:	E	E	E	G_2	G_2	A_2	A_2	A_2	A_2	A_2	A_2	A_2
BASS RHYTHM:	C	2	2	E	2	2	D	2	2	G	2	2
	Dm	Dm	Dm	G	G	G	C	C	C	C	C	C
	F	F	F	A_2	A_2	B_2	B_2	B_2	B_2	B_2	B_2	B_2
	D	2	2	G	2	2	C	2	2	G	2	2
	C	C	C	C	C	C	F	F	F	F	F	F
	D_2	D_2	D_2	C_2	C_2	E	G_2	G_2	G_2	F	F	E
	C	2	2	E	2	2	F	2	2	A	2	2
	C	C	C	G	G	G	C	C	C	C		
	E	E	E	D	D	D	C	E	G_2	C_2		
	C_2	2	2	G	2	2	C	2	2	C		

MEMORY COUNTER SHOWS: 46

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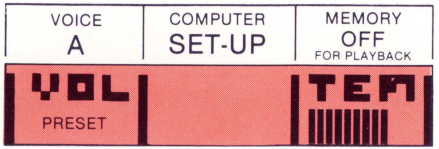
MELODY and BASS



TA-RA-RA BOOM-DER-E

MELODY: G_2 F+ G_2 C_2 G_2 E 2 2 E D+ E G_2 E C 1 1
Ta–ra–ra boom–der–e' ta–ra–ra boom–der–e'

BASS RHYTHM: — — — C 2 G 2 C 2 G 2 C 2 G 2 C

E D C D D D 1 4 F E D G_2 E C 3 3
ta–ra–ra boom der–e' ta–ra–ra boom–der–e'
2 G 2 D 2 G 2 D 2 G B C 2 G 2 C

G_2 F+ G_2 C_2 C_2 C_2 2 2 E D+ E G_2 G_2 G_2 2 2
ta–ra–ra boom–der–e' ta–ra–ra boom–der–e'
E D+ E C 4 G 4 C 4 G 4 C 4 G 4 C

E D C D D D 2 2 F E D G_2 E C 4 1
ta–ra–ra boom–der–e' ta–ra–ra boom–der–e'.
C B A G 4 D 4 G G A B C 4 G 4 C

MEMORY COUNTER SHOWS: 64

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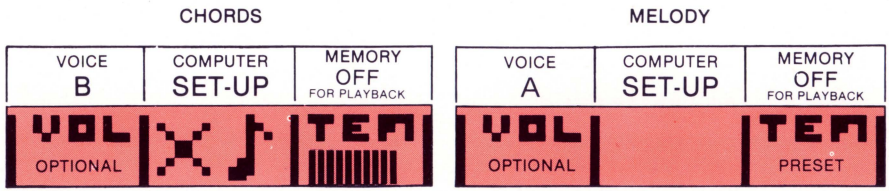

WILLIAM TELL OVERTURE ("Lone Ranger" Theme Song)

CHORDS: C C C C
MELODY: G G G — G G G — G G C — D — E —

C C G G
G G G — G G C — E — D — B — G —

C C C C
G G G — G G G — G G C — D — E —

G G C C
C E G_2 — — — — F E D C — E — C

MEMORY COUNTER SHOWS: 63

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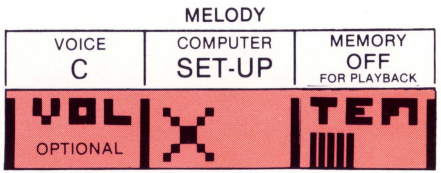

A Screen Gems T.V. Serial

NADIA'S THEME (The Young And The Restless) By BARRY DE VORZON and PERRY BOTKIN, Jr.

Enter and playback this song in two parts: First, enter SECTION ❶ and PLAYBACK; CLEAR memory, then enter from ❷ to the end of the song and PLAYBACK.

MELODY: ❶

E_2 E_2 E_2 E_2 E_2 E A_2 E_2 D_2 D_2 D_2 D_2 D_2 D G_2 D_2
C_2 C_2 C_2 D_2 E_2 E_2 E_2 C_2 B_2 B_2 B_2 B_2 B_2 B_2 B_2 B_2
E_2 E_2 E_2 E_2 E_2 E A_2 E_2 D_2 D_2 D_2 D_2 D_2 D G_2 D_2

MEMORY COUNTER SHOWS: 61 ❷

C_2 C_2 C_2 D_2 E_2 E_2 E_2 C_2 B_2 B_2 B_2 B_2 B_2 B_2 D_2 G_2
A_2 A_2 A_2 A_2 A_2 A_2 D_2 A_2 B_2 B_2 B_2 B_2 B_2 D_2 G_3 D_2
E_2 D_2 C_2 C_2 F_2^+ E_2 D_2 D_2 E_2 C_2 B_2 G_2 E E E E
E_2 E_2 E_2 E_2 E_2 E A_2 E_2 D_2 D_2 D_2 D_2 D_2 D G_2 D_2
C_2 C_2 C_2 D_2 E_2 E_2 E_2 C_2 B_2 B_2 B_2 B_2 B_2

MEMORY COUNTER SHOWS: 64

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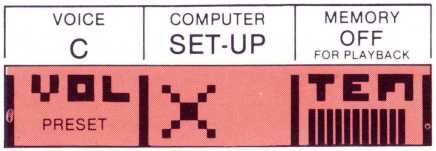
MELODY



HAPPY TRAILS

Words and Music by DALE EVANS

Enter and PLAYBACK in two parts: first section ❶, then section ❷

❶

MELODY:

G	G	G_2	G_2	G_2	G_2	G_2	G_2	G_2	G_2	E	E	E	E	E	E
Hap —	py	trails						to		you					
—	G	A	A	A	G	A^+	A^+	A^+	G	B	B	B	B	B	B
	un —	til			we	meet			a —	gain.					
G	G	G_2	G_2	G_2	G_2	G_2	G_2	G_2	G_2	D	D	D	D	D	—
Hap —	py	trails						to		you,					
G	—	D	D	D	G	D^+	D^+	D^+	G	E	E	E	E	E	E
Keep		smil ———			in'	un ———			til	then.					

MEMORY COUNTER SHOWS: 64

❷ — G_2 G_2 E E D D C B C G_2 G_2 G_2 G_2 F F
Who cares a — bout the clouds when we're to–geth ———— er ?

— E E C^+ C^+ B B A G^+ A E E E E D D
Just sing a song and bring the sun–ny weath ———— er.

G G G_2 G_2 G_2 G_2 G_2 G_2 G_2 G_2 E E E E E E
Hap — py trails to you

F G_2 A_2 A_2 A_2 A_2 B B B B C C C C C
till we meet a ———— gain.

MEMORY COUNTER SHOWS: 62

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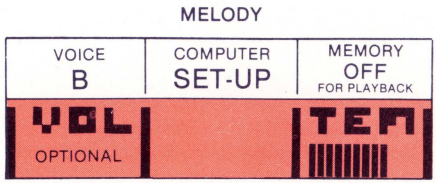
TAKE ME HOME, COUNTRY ROADS

Words and Music by BILL DANOFF, TAFFY NIVERT and JOHN DENVER

Play the first four lines without entering into memory.
Then, enter and PLAYBACK starting at ❶



MELODY:

G — G A — G — — A — G A — C
1. Al — most heav — en, West Vir — gin ia,
2. All my mem — ries gath — er 'round her,

D — D E — D — A A A G A C C
Blue Ridge Moun — tains Shen — an — do — ah Riv — er.
Min — er's La — dy, Stran — ger to blue wa — ter.

G — G A — G — A C C E E
Life is old there, old — er than the trees,
Dark and dust — y, paint — ed on the sky,

D D D D E — D — A C C D C —
young — er than the moun — tains grow — in like a breeze.
mist — y taste of moon — shine, tear — drop in my eye.

❶ C D E — — — 2 — E C D — — —
Coun—try roads take me home

2 — E D C — — — 2 — E G_2 A_2 — — —
to the place I be long

2 — A_2 A_2 G_2 E — — 2 — E C D E — —
West Vir—— gin—ia, Moun—tain Mom—ma,

2 — E D C — — — 2 — C D C — — — 2
Take me home Coun—try roads.

MEMORY COUNTER SHOWS: 63

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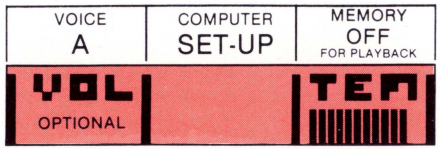
THANK GOD I'M A COUNTRY BOY

Words and Music by JOHN MARTIN SOMMERS

Enter and PLAYBACK in 3 sections.



MELODY: ❶

1. A_2^+ Well, B_2 life — G_2 on G_2 a G_2 farm — G_2 is — B_2 kind — B_2 a D_2 laid — E_2 back, —

D_2 Ain't — D_2 much B_2 an B_2 old — B_2 coun—try A_2 boy G_2 like E me — G_2 can't — E hack. —

D It's — G_2 ear—— G_2 ly G_2 to — B_2 rise, — — — B_2 ear—— B_2 ly D_2 in D_2 the E_2 sack:

— — — — D_2 Thank — D_2 God — B_2 I'm G_2 a A_2 coun— F^+ try G_2 boy. — —

MEMORY COUNTER SHOWS: 61

❷ A_2^+ A B_2 sim—ple G_2 kind G_2 a G_2 life — G_2 nev—er G_2 did B_2 me D_2 no — E harm, — — —

D_2 Rais—in' B_2 me B_2 a A_2 fam — i — G_2 ly E and G_2 work G_2 in' G_2 on G_2 a E farm, —

D My — G_2 days G_2 are G_2 all — B_2 filled — B_2 with B_2 an D_2 eas—— D_2 y D_2 coun—try D_2 charm: E_2 —

— — — D_2 Thank — D_2 God — B_2 I'm G_2 a A_2 coun— F^+ try G_2 boy. — —

(Chorus): ❸

B_2	B_2	A_2	—	A_2	A_2	A_2	—	D	D	B_2	—	B_2	B_2	A_2	G_2
Well,	I	got		me	a	fine		wife	I	got		me	old	fid	— dle,
G_2	G_2	A_2	—	A_2	A_2	A_2	—	D	D	B_2	—	B_2	B_2	A_2	G_2
When	the	sun's		com	— in'	up		!	got	cakes		on	the	grid	— dle,
E	—	G_2	—	G_2	—	B_2	—	B_2	B_2	B_2	D_2	D_2	D_2	D_2	E_2	—	E_2	—
And		life		ain't		noth	— in'	but	a	fun	— ny,	fun	— ny	rid	——— dle:			
—	—	—	D_2	—	D_2	B_2	G_2	A_2	F^+	G_2	—	—	2					
			Thank		God	I'm	a	coun	— try	boy.								

MEMORY COUNTER SHOWS: 64

Additional words

2. When the work's all done and the sun's settin' low
I pull out my fiddle and I rosin up the bow.
But the kids are asleep so I keep it kinda low:
Thank God I'm a country boy.
I'd play "Sally Goodin'" all day if I could,
But the Lord and my wife wouldn't take it very good.
So I fiddle when I can and I work when I should:
Thank God I'm a country boy.
(Chorus)

3. I wouldn't trade my life for diamonds or jewels,
I never was one of them money hungry fools.
I'd rather have my fiddle and my farmin' tools:
Thank God I'm a country boy.
Yeah, city folk drivin' in a black limousine,
A lotta sad people thinkin' that's mighty keen.
Well, folks, let me tell you now exactly what I mean:
I thank God I'm a country boy.
(Chorus)

4. Well, my fiddle was my daddy's till the day he died,
And he took me by the hand and held me close to his side.
He said, "Live a good life and play my fiddle with pride,
And thank God you're a country boy."
My daddy taught me young how to hunt and how to whittle,
He taught me how to work and play a tune on the fiddle.
He taught me how to love and how to give just a little:
Thank God I'm a country boy.
(Chorus)

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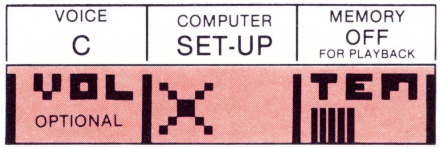
MELODY and BASS



ALL THROUGH THE NIGHT

MELODY: C C C B A A C C D D D C B B G G
Sleep my child and peace at—tend thee
BASS: C 2 E 2 F 2 E D+ D 2 A G+ G 2 B 2

A A A A B B B B C C C C C C C C
all through the night.
F 2 F 2 G2 2 D D C 2 G 2 C G A B

C C C B A A C C D D D C B B G G
Guard ——ian an — gels God will send thee
C 2 E 2 F 2 E D+ D 2 A G+ G 2 B 2

A A A A B B B B C C 2
all through the night.
F 2 F 2 G2 2 D D C G C

MEMORY COUNTER SHOWS: 59

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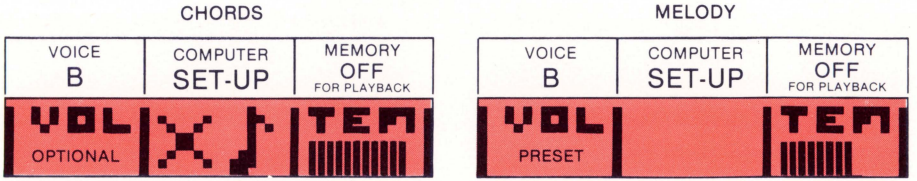
ODE TO JOY

(Classical)



CHORDS:	C	C	C	C	G	G	G	G	C	C	C	C	G	G	G	G
MELODY:	E	—	F	G_2	G_2	F	E	D	C	C	D	E	E	D	D	—
	C	C	C	C	G	G	G	G	C	C	C	C	G	C	C	C
	E	—	F	G_2	G_2	F	E	D	C	C	D	E	D	C	C	—
	G	G	C	C	G	G	C	C	G	G	C	C	F	F	G	G
	D	D	E	C	D	F	E	C	D	F	E	D	C	D	G	—
	C	C	C	C	G	G	G	G	C	C	C	C	G	G	C	
	E	—	F	G_2	G_2	F	E	D	C	C	D	E	D	—	C	

MEMORY COUNTER SHOWS: 63

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VOICE	COMPUTER	MEMORY
A	SET-UP	OFF FOR PLAYBACK
VOL OPTIONAL		TEMPO

Theme from the Paramount T.V. Show "MORK & MINDY"

MORK & MINDY THEME

By PERRY BOTKIN, Jr.

Enter and PLAYBACK each section separately. Just for fun, replace any or all of the rests shown with asterisks * with different EFFECTS – you'll hear a real "orky" song!

❶ G_2 — * — E — * — G — * — G C E G_2 F — * — D — * — G — * — G B D F

E — * — E — D E C — B C D — B C A — B C E — D — C^+ — * — * — * —

MEMORY COUNTER SHOWS: 64

❷ C_2 — * — E_2 — * — D_2 — * — * — C_2^+ B_2 C_2^+ D_2 E_2 — A_2 — C_2^+ — F^+ — G_2^+ A_2 C_2^+ — B_2 —

E_2 — * — G_3 — * — F_2 — D_2 C_2 D_2 — A_2 — B_2 — G_2 B_2 C_2 — A_2 C_2 D_2 — * — * — * —

MEMORY COUNTER SHOWS: 64

❸ G_2 — * — E — * — G — * — G C E G_2 F — * — D — * — G — * — G B D F

E — * — E — D E C — B C D — B C A — B C E — D — C — * — * — * —

MEMORY COUNTER SHOWS: 64

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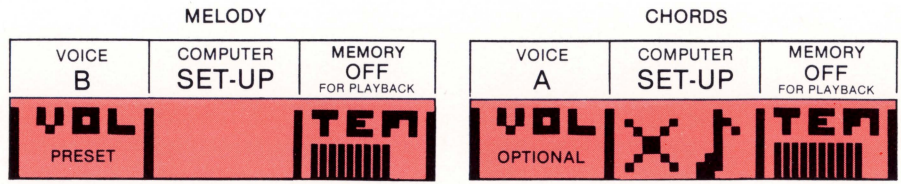

KUMBAYA (Hymn)

CHORDS: — — **C** — **C** — **C** — **F** — **C** — **C** — **C** —
MELODY: C E G_2 G_2 G_2 — — — A_2 A_2 G_2 — — — — —
Some-one's sing—ing, Lord be with us;

C — **C** — **C** — **C** — **F** — **Dm** — **Dm** — **G** —
C E G_2 G_2 G_2 — — — F E D — — — — —
Some-one's sing—ing, Lord be with us;

G — **C** — **C** — **C** — **F** — **C** — **C** — **C** —
C E G_2 G_2 G_2 — — — A_2 A_2 G_2 — — — — —
Some-one's sing—ing, Lord be with us;

F — **C** — **C** — **C** — **G** — **C** —
F — E C — — — — D D C —
Oh Lord, be with us.

MEMORY COUNTER SHOWS: 60

Additional words

2. Someone's praying, etc.
3. Someone's asking, etc.
4. Someone's searching, etc.
5. Someone's giving, etc.
6. Someone's loving, etc.
7. Someone's suff'ring, etc.
8. Someone's hungry, etc.
9. Someone's dying, etc.
10. Someone's thanking, etc.
11. Someone's praising, etc.

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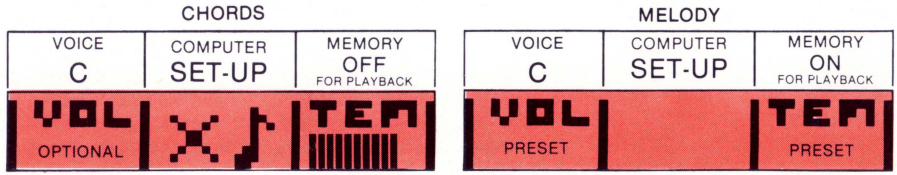

AMAZING GRACE (Hymn)

CHORDS:	—	C	C	C	C	C	C	F	F	F	C	C
MELODY:	G	C	—	E	E	—	D	C	—	A	G	—
	A—	maz	———	ing	Grace		how	sweet		the	sound	
	C	C	C	C	C	C	G	C	C	C	C	C
	G	C	—	E	E	—	D	E	G_2	—	—	—
	that	saved		a	wretch		like	me!				
	C	C	C	C	C	C	C	F	F	F	C	C
	E	G_2	—	E	C	—	G	A	—	A	G	—
	I	once		was	lost,		but	now		am	found,	
	C	Am	Am	Am	G	G	G	C				
	G	C	—	E	E	—	D	C				
	was	blind,		but	now		I	see.				

MEMORY COUNTER SHOWS: 44

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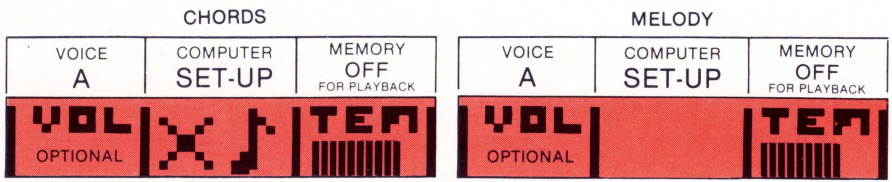

HE'S GOT THE WHOLE WORLD IN HIS HANDS

CHORDS: – – – **C** – **C** – **C** – **C** – **C** – – **F** – **C**
MELODY: G_2 G_2 E G_2 – – – E C – – G_2 A_2 – G_2 –
He's got the whole world in His hands;

– **C** – **G** – **G** – **G** – **G** – **G** – – **G** – **G**
G_2 G_2 E F – F – D B – – F G_2 – F –
He's got the whole wide world in His hands;

– **G** – **C** – **C** – **C** – **C** – **C** – – **F** – **C**
E E F G_2 – – – E C – – G_2 A_2 – G_2 –
He's got the whole world in His hands;

– **C** – **G** – **G** – **G** – **G** – **C** – – **G** – **C**
G_2 G_2 E G_2 – G_2 – F D – – C – G_2 – C_2
He's got the whole world in His hands.

MEMORY COUNTER SHOWS: 64

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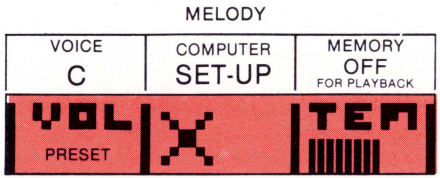

From the Paramount Picture "THE LEMON DROP KID"

SILVER BELLS

By JAY LIVINGSTON and RAY EVANS

Play the first four lines without entering into memory.
Then Enter and PLAYBACK section ❶; then section ❷

MELODY:

C_2 A_2 G_2 — E — C_2 A_2 G_2 — E — E_2 D_2 C_2 — A_2 — A_2 — A_2
Ci—ty side — walks, bu—sy side — walks dressed in hol—— i —— day style,

D_2 C_2 B_2 — G_2 — F^+ — F — G_2 — F — F — E
In the air there's a feel—— ing of Christ—mas.

C_2 A_2 G_2 — E — C_2 A_2 G_2 — E — E_2 D_2 C_2 — A_2 — A_2 — A_2
Chil dren laugh——ing, peo-ple pass —— ing, meet—ing smile af——ter smile,

D_2 C_2 B_2 — G_2 — F^+ — F — G_2 — D_2 — C_2
And on ev—— 'ry street cor—— ner you hear

❶ E F G_2 G_2 G_2 C_2 E_2 G_2 C_2 E G_2 — A_2 B_2 C_2 C_2 C_2 C_2 F_2 A_2 C_2 F A_2—
Sil—ver Bells, Sil——ver Bells,

B_2 — B_2 — C_2 — D_2 D_2 D_2 D_2 C_2 B_2 C_2 — G_2 G_2 G_2 — A_2 — G_2 —F —
It's Christ—mas time in the ci———ty;

MEMORY COUNTER SHOWS: 48

❷ E F G_2 G_2 G_2 C_2 E_2 G_2 C_2 E G_2 — A_2 B_2 C_2 C_2 C_2 C_2 F_2 A_2 C_2 F A_2—
Ring a—ling, hear them ring,

B_2 — B_2 — C_2 — D_2 — C_2 — B_2 — C_2 — — — G_3 E_2 F_2 — E_2 —D_2—C_2
Soon it will be Christ——mas day.

MEMORY COUNTER SHOWS: 49

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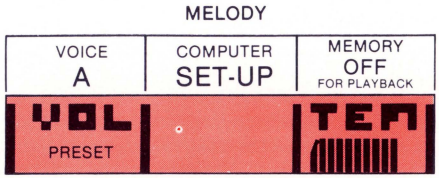
RUDOLPH THE RED-NOSED REINDEER

By JOHNNY MARKS

Play the first six lines without entering into memory. Then, enter and PLAYBACK each of the four sections one at a time.



MELODY:

	A_2	B_2	C_2	A_2	—	F	B_2	G_2	—	E	A_2	F	—	D	—	A_2	G_2														
	You	know	Dash—	er		and	Danc—	er		and	Pranc—	er		and		Vix—	en														
	C_2	A_2	—	F	B_2	G_2	—	E	A_2	F	—	D	A_2	G_2																	
	Com—	et		and	Cu—	pid		and	Don—	ner		and	Blitz—	en																	
	E	—	E	—	E	—	E	—	A_2																							
	But		do		you		re	———	call																						
	A	B_2	C_2	—	C_2	—	C_2	B_2	—	A_2	G_2	—	F	—	E	—	D	—														
	the	most	fa———		mous		rein—	deer		of	all?																				
❶	G_2	A_2	—	G_2	E	—	C_2	—	A_2	—	G_2	—	2	—	2	—															
	Ru—	dolph		the	red ———		nosed		rein ———		deer																				
	G_2	A_2	G_2	A_2	G_2	—	C_2	—	B_2	—	—	—	1	—	—	—															
	had	a	ver—	y	shin ———		y		nose,																						

F G_2 — F D — B_2 — A_2 — G_2 — 2 — 2 —
And if you ev——er saw it

G_2 A_2 G_2 A_2 G_2 — A_2 — E — — — 3 — — —
you would e—ven say it glows.

MEMORY COUNTER SHOWS: 64

❷ G_2 A_2 — G_2 E — C_2 — A_2 — G_2 — 2 — 2 —
All of the oth——er rein —— deer

G_2 A_2 G_2 A_2 G_2 — C_2 — B_2 — — — 1 — — —
used to laugh and call him names,

F G_2 — F D — B_2 — A_2 — G_2 — 2 — 2 —
They nev——er let poor Ru—— dolph

G_2 A_2 G_2 A_2 G_2 — D_2 — C — 2 — 3 — 2 —
join in an—y rein——deer games.

MEMORY COUNTER SHOWS: 64

❸ A_2 — A_2 — C_2 — A_2 — G_2 — E — G_2 — 2 —
Then one fog—— gy Christ —— mas Eve

F — A_2 — G_2 — F — E — 2 — 2 — 3 —
San——ta came to say:

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(Continue on next page)

(Continued)

D — E — G_2 — A_2 — B_2 — B_2 — B_2 — 2 —
"Ru——— dolph with your nose so bright,

C_2 — C_2 — B_2 — A_2 — G_2 — F — D — 2 —
won't you guide my sleigh to night?"

MEMORY COUNTER SHOWS: 64

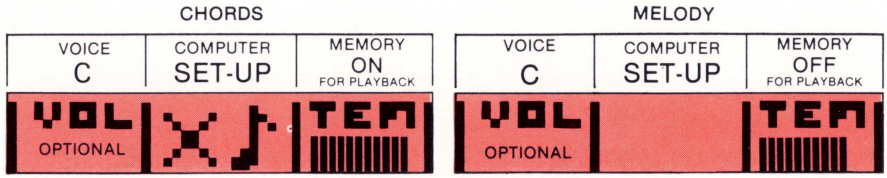
❹ G_2 A_2 — G_2 E — C_2 — A_2 — G_2 — 2 — 2 —
Then how the rein ——— deer loved him,

G_2 A_2 G_2 A_2 G_2 — C_2 — B_2 — — — 3 — — —
As they shout—ed out with glee:

F G_2 — F D — B_2 — A_2 — G_2 — 2 — 2 —
"Ru—dolph the red nosed rein ———deer,

G_2 A_2 G_2 A_2 G_2 — D_2 — C_2 — G_2 — C
you'll go down in his——— to ——————ry."

MEMORY COUNTER SHOWS: 61



GO TELL IT ON THE MOUNTAIN (Gospel or Christmas)

CHORDS: C – C – C – C – C – C – C – C –
MELODY: E – – – E D C A G – – – C – – –
Go tell it on the moun——————tain

G – G – G – G – G – G – Am – G –
D D – C D – C – E – G_2 – A_2 – G_2 –
o—ver the hills and ev———ery where

C – C – C – C – C – C – C –
E – – – E D C A G – – – C –
Go tell it on the moun——————tain

F – C – F – C – G – C – G – C
D – E – F – E – D – C – – – C_2
that Je——sus Christ is born.

MEMORY COUNTER SHOWS: 61

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